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MADRAS GOVERNMENT MUSEUM.

Bulletin, Vol. II, No. 1.

ANTHROPOLOGY.

Badagas and Irulas of the Nilgiris;
Paniyans of Malabar; A Chinese-Tamil Cross;
A Cheruman Skull; Kuruba or Kurumba;
Summary of Results.

With Seventeen Plates.

BY

EDGAR THURSTON,
SUPERINTENDENT, MADRAS GOVERNMENT MUSEUM.

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PL. I

GROUP OF BADAGAS.

ANTHROPOLOGY.

THE BADAGAS OF THE NILGIRIS.

As the Todas are the pastoral, and the Kotas the artisan tribe of the Nilgiris, so the agricultural element on these hills is represented by the Badagas (or, as they are sometimes called, Burghers), whose number was returned as 29,613 at the Census 1891 against 24,130 at the previous Census. But, though the primary occupation of the Badagas is agriculture, there are, among their community, bricklayers, carpenters, tailors, sawyers, barbers, washermen, &c., and many work for Europeans as coolies on tea and coffee estates.

The name Badaga or Vadugan means 'northerner,' and the Badagas, who speak a language allied to Kanarese, are no doubt descended from Kanarese Hindu colonists from the Mysore country, who migrated, probably about three centuries ago, to the hills owing to famine, political turmoil, or local oppression in their own country. They have a tradition that five hundred years ago there were seven brothers living with their sister at a place called Badag-halli near Mysore. A Muhammadan Nawāb fell in love with, and asked the permission of the brothers to marry the girl, and they, being afraid of him, ran away and settled on the Nilgiri plateau.

Among the Badagas six distinct septs are recognised, viz. :—

Udaya (or Wodeyar).	Lingāyats ..	High caste.
Adhikāri	Do. ..	Do.
Kanaka	Do. ..	Do.
Hāruva	Saivites ..	Do.
Badaga	Do. ..	Do.
Toraya	Do. ..	Low caste.

The Hāruva, Adhikāri, Kanaka, and Badaga septs are permitted to intermarry one with the other, whereas the Udayas and Torayas may only marry into their own sept.

The Hāruvas wear the Brāhmanical thread, and it has been suggested by Mr. Natesa Sastri that they were originally poor Brāhman priests, who migrated with the Badagas to the Nilgiris. The Torayas are the lowest sept, and do menial work for the other septs, which regard them as sons or servants. Toraya women are distinguished by wearing bangles of glass and base metal round the left wrist. The Udaya, Hāruva, and Adhikāri septs are vegetarians, whereas the Kanakas, Badagas and Torayas are permitted to eat both animal and vegetable food. It is said that the vegetarian Adhikāri, if he marries* into a flesh-eating caste, betakes himself to the new diet very readily—more readily, in fact, than an Englishman of my acquaintance, who had to abandon his carnivorous habits as a condition of acceptance by a vegetarian lady.

Living in extensive villages, generally on the summit of a low hillock, composed of rows of comfortable thatched or tiled houses, and surrounded by the fields which yield the crops of korāli (*Setaria italica*), sāmai (*Panicum miliare*), &c., the Badagas would seem, at first sight, to be a prosperous and thriving community as compared with the other tribes of the Nilgiris. A great newspaper discussion was recently carried on as to their condition, and whether they are a down-trodden race, bankrupt and impoverished to such a degree that it is only a short time before something must be done to ameliorate their condition, and save them from extermination by inducing them to emigrate to the Wynād and the Vizagapatam district. After reading much, and hearing and seeing more of the Badagas, I am on the side of one who wrote to the effect that "so far from approaching ruin, the Badaga is in a far better condition than he was some years ago. The tiled houses, costing from Rs. 250 to Rs. 500, certainly point to their prosperity. They may frequently borrow from the Lubbay to enable them to build, but, as I do not know of a single case in which the Lubbay has ever seized the house and sold it, I believe this debt is soon discharged. The walled-in, terraced fields immediately around their villages, on which they grow their barley and other grains requiring rich cultivation, are well worked and regularly manured. The coats, good thick blankets, and gold ear-rings, which most Badagas now possess, can only, I think, point to their prosperity, while their constant feasts, and disinclination to work on Sundays, show that the loss of a few days' pay does not affect them."



BADAGA MAN.

The Badaga ceremonies and rites have been so fully described by others¹ that I shall only touch lightly on this already well-trodden ground.

In his religion the Badaga is polytheistic and a demonolater, worshipping a select number of major, and thirty-three crores² of minor gods, and attributing fever contracted by being out after dark, and other ailments and mishaps, to the influence of devils. Worship is performed in all manner of edifices, from a small jungle or road-side shrine to the big temple with gopurams at Karamadai at the foot of the hills, whereat the Badaga worships in common with other Hindu sects and Todas. Their gods are represented by human images of gold and silver, stone bulls and roughly-hewn stones, to which oblations of milk are offered when a cow refuses to give milk in proper quantity. In omens, both good and bad, they believe implicitly. Among the former are reckoned two Brāhmans, a jackal, or a milk-pot in front, whereas a snake passing in front, a woman with her hair down her back, a widow, or a single Brāhman going before are harbingers of evil.

The investiture of youths of the Lingāyat sept with the badge of his religion, the linga or phallic emblem, which is tied round his neck, is the occasion of a solemn ceremonial, accompanied by payment of fees to the officiating priest, who acts as Grand Master of the Order, the pouring of an offering of the milk of cows and buffaloes into a rivulet, and a feast. When a Badaga lad has reached the youthful years at which he is expected to be of use to the community, he is instructed in the important duty of milking the cattle, and permitted to enter thenceforth within the milk-house (hāgōtu), wherein no female may set foot.

In the Udaya sept, according to Mr. Natesa Sastri, there is nothing in the nature of courtship, but the father settles the bride or bridegroom for his child. In the other septs a simple form of sexual selection takes place, and engagement, soon followed by marriage on an auspicious day, is announced as the result of a brief period of courtship, which affords some opportunity for testing compatibility or incompatibility. The marriage bond is not, however, really,

¹ S. M. Natesa Sastri, *Madras Christian College Magazine*, April and May 1892, Vol. IX, Nos. 10-11; Grigg, *Manual of the Nilagiri District*, 1890.

² A crore = 10,000,000.

sealed until the fifth month of the first pregnancy, when the relatives are invited to be present at the ceremony of kanni-kattēdu, or tying the marriage emblem round the neck of the woman. If, when he is performing this function, the husband gets the string entangled in his wife's hair, he is fined for carelessness. As a sign that a girl has reached puberty, and is available for matrimonial purposes, she is tattooed on the forehead with a needle dipped in the blacks collected from a cooking-pot and mixed with oil.

The funeral rites of the Badagas are carried out with a ceremonial very similar to that of the Kotas, which I have already described as an eye-witness (Bull: No. 4), and Kotas are engaged as musicians. In the course of these rites, an elder, standing by the corpse, offers up a prayer that the dead may not go to hell, that the sins committed on earth may be forgiven, and that the sins may be borne by a calf, which is let loose in the jungle, and used thenceforth for no manner of work. This Badaga custom of dedicating a scape-calf is of distinct interest, when compared with the Levitical dedication of a scape-goat. "But the goat on which the lot fell to be the scape-goat shall be presented alive before the Lord to make an atonement with him, and to let him go for a scape-goat in the wilderness, and the goat shall bear upon him all their iniquities unto a land not inhabited." (Lev. XVI, 10; 22).

A quarter of a century ago, a Badaga could be at once picked out from the other tribes of the Nilgiris by his wearing a turban. But, in the present advanced age, when 'manners and customs' are undergoing rapid modification owing to the influence of domestication and contact with Europeans, not only does the Toda occasionally appear in the national head-dress, but even Irulas and Kurumbas, who, only a short time ago, were buried in the jungles, living like pigs and bears on roots, honey, and other minor forest produce, turn up on Sundays in the Kotagiri bazār, clad in turban and coat of English cut. And, as the less civilised tribes don the turban, so the college student abandons this picturesque form of head-gear in favour of the less becoming, and less washable, pork-pie cap, while the Badaga glories in a knitted night-cap of flaring red or orange hue.

In colour the Badagas are lighter than the other hill-tribes, and the pallor of the skin is specially noticeable in the females, whom, with very few exceptions, I was only



BADAGA MAN.

able to study by surreptitious examination when we met on the roads. In physique the typical Badaga is below middle height, smooth-skinned, of slender build, with narrow chest and shoulders.

Like other Kanarese classes which I have investigated, the Badagas have, as shown in the subjoined tabular statement, a short span of the arms relative to the stature, when compared with many of the Tamil classes :—

				Span of arms relative to stature=100.
Kotas.	Kanarese?	..	..	103·3
Koramas.	Kanarese	..	..	103·2
Kurubas.	Do.	..	..	104·3
Badagas.	Do.	..	..	104·6
Kanarese Pariahs.	Kanarese	..	..	105·1
Tamil Pariahs.	Tamil	..	..	106·1
Tamil Brāhmans.	Do.	..	..	106·6
Kammālans.	Do.	..	..	107·1
Ambattans.	Do.	..	..	107·2
Vellālas.	Do.	..	..	107·2

The average distance from the tip of the middle finger to the top of the patella (knee-cap) in the position of 'attention' with the muscles of the thigh relaxed, is in the Badagas, as in two other Kanarese classes which I have examined (Kurubas and Koramas) considerable. But this character is discussed later on (p. 48).

The average height of the Badaga, according to my measurements, is 164·1 cm. One man (not included in the averages), whose father was still taller than himself, was 183·2 cm. high. The measurements of this man, as compared with the Badaga average, were as follows :—

				Badaga average.	
				CM.	CM.
Height	..	..	..	183·2	164·1
„ sitting	..	..	..	92·8	84·5
„ kneeling	..	..	..	134	120·8
Span of arms	..	..	..	193·2	171·7
Shoulders	..	..	..	44·3	39·4
Cubit	..	..	..	50·6	46·2
Hand, length	..	..	..	19·5	17·7
Middle finger	..	..	..	13	11·5
Hips	..	..	..	30·1	26·6
Foot, length	..	..	..	28·1	25

The typical tribal costume of the Badaga men consists of langūti, white turban, and long body-cloth with red and

blue stripes wrapped round them "so loosely that, as a man works in the fields, he is obliged to stop between every few strokes of his hoe, to gather up his cloth and throw one end over his shoulder." Male adornment with jewelry is limited to gold ear-rings, a silver bangle on the wrist, and silver, copper or brass rings.

As types of female attire, jewelry and tattooing, the following 'cases' may be cited:—

Girl, aged 13. Tattooed on forehead (pl. IV-A 1). White cloth covering body, and white under-cloth tied round chest, tightly wrapped square across the breasts and reaching to knees. Gold ornament in left nostril, necklets of small glass beads, and of large glass beads with two silver ornaments.

Woman, aged 30. Body clothing the same as preceding. White cotton cap on head (pl. IV). Tattooed on forehead (pl. IV-A 1); spot on chin; double row of dots on each upper arm over deltoids (pl. IV-A 2); and pattern on right fore-arm (pl. IV-A 3). Gold ornament in left nostril. Gold ring in lobe of each ear. Necklets of small glass beads and of silver links with four-anna piece pendent. Silver armlet above right elbow. Four copper armlets above left elbow. Four silver, and seven composition bangles on left fore arm. Two silver rings on right ring-finger; two steel rings on left finger.

Woman, aged 45. Tattooed on forehead (pl. IV-A 4); single row of dots over right deltoid; pattern on left fore-arm (pl. IV-A 5); and three dots on back of left wrist.

Woman, aged 35. Tattooed on forehead (pl. IV-A 1); quadruple row of dots over right deltoid; and star on right forearm (pl. IV-A 6).

Woman, aged 30. Tattooed like the preceding on forehead and upper arm; spot on chin; elaborate device on right forearm (pl. IV-A 7); and star on back of right hand.

Woman, aged 35. Tattooed like the two preceding on forehead and upper arm; double row of dots and star on right forearm (pl. IV-A 8).

Woman, aged 40. Tattooed like the three preceding on forehead and upper arm; elaborate device on right forearm (pl. IV-A 3); triple row of dots on back and front of left wrist; and double row of dots with circle surrounded by dots across chest (pl. IV-A 9).



BADAGA WOMAN.

TABLE I.
SUMMARY OF MEASUREMENTS.
BADAGAS.

	Max.	Min.	Average.	Mean above.	Mean below.
Weight	125	90	105	115	98
Height	180·2	154	164·1	169·4	159·9
Height, sitting	89·2	80·7	84·5	87·3	82·4
Height, kneeling	130·5	114·3	120·8	124·1	117·2
Height to gladiolus	138	116	123·7	128	119·9
Span of arms	191	158·4	171·7	176·8	166·7
Chest	87	73	80·4	8·3	77·7
Middle finger to patella	17·4	7·8	12·2	14·5	10·6
Shoulders	43·8	36·2	39·4	40·7	38·3
Cubit	49·7	42·6	46·2	47·5	44·9
Hand, length	19·2	16	17·7	18·2	17·2
Hand, breadth	8·7	7·5	8·1	8·3	7·9
Middle finger	12·3	10·7	11·5	11·9	11·2
Hips	29·4	24·3	26·6	27·5	25·5
Foot, length	27·2	23·2	25	25·7	24·2
Foot, breadth	9·6	7·8	8·6	8·9	8·3
Cephalic length	20·2	18	18·9	19·4	18·4
Cephalic breadth	14·5	12·8	13·6	13·9	13·3
Cephalic index	77·5	66·1	71·7	73·9	69·5
Bigonial	10·2	8·6	9·7	10	9·3
Bisymphatic	13·5	12	12·7	13	12·4
Maxillo-symphatic index	83·6	67·2	76·9	79·4	73·9
Nasal height	5·1	4·1	4·6	4·8	4·4
Nasal breadth	3·9	3·2	3·4	3·6	3·3
Nasal index	88·4	62·7	75·6	80	71·4
Vertex to tragus	14·6	12·7	13·6	14	13·2
Vertex to chin	22·6	19·7	21·2	21·8	20·7
Facial angle	77	67	71	73	68

Note.—The results are based on the measurement of forty subjects. In this and the following tables, the weight is recorded in pounds; the measurements are in centimetres.

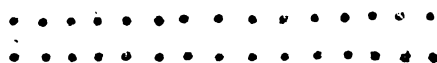
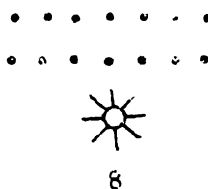
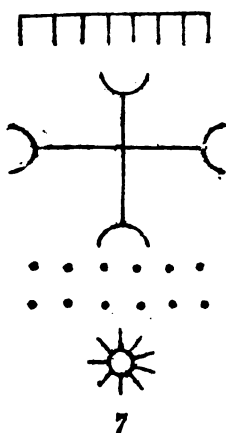
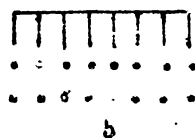
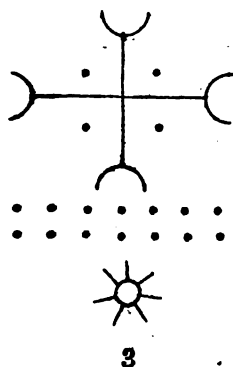
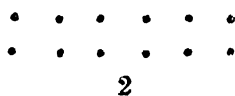
THE IRULAS OF THE NILGIRIS.

For the purpose of comparing the characteristics of the five tribes which inhabit the Nilgiri hills, no better hunting ground can be selected than the Kotagiri bazar. There on market day (Sunday) may be seen gathered together Todas from the distant Kodanād mand, Kotas from the adjacent Kota village, Badagas from the surrounding villages, and, in fewer numbers, Irulas and Kurumbas, who have walked up from their homes on the lower slopes to purchase the weekly supplies, laden with which they tramp cheerfully back in the afternoon. In distinguishing a Toda, Kota, or Badaga, no difficulty is experienced even on very slight acquaintance with them, but to decide between Irula and Kurumba is not nearly so easy; and, when I have seen both together on a coffee estate, I have several times committed an error of diagnosis. The manager of an estate, after several years acquaintance with them, said he could always, without fail, distinguish a Kurumba from an Irula, although unable to explain exactly how he did so. He thought the difference was mainly in the more prominent cheek-bones and shorter and flatter noses of the Irulas.³ In the Manual of the Nilgiri District, 1880, Mr. H. B. Grigg states that "the Irulas belong to a still more primitive race than the Kurumbas, namely, the Bedas or hunters of the forests of the peninsula. The opinion that the Nilgiri Irulas are allied to these Bedas receives confirmation from the fact that they, like the Mysore Bedas, are worshippers generally of Vishnu, a remarkable circumstance considering the almost universal Sivaism of the aboriginal tribes of South India." It was suggested, on the other hand, by Colonel Ross King⁴ that the Irulas and Kurumbas were originally one, and that the slight physical differences between them may have resulted from the nature of their respective situations and consequent modes of life. At the present day both Irulas and Kurumbas are occasionally found living in the same hamlet (or *motta*).

The hill Kurumbas (or Kurumans) it may be noted, *en passant*, are sub-divided by the Census Commissioner, 1891, into Mulla Kurumans, Vetta Kurumans, Ūrāli Kurumans, Tēn Kurumans, and Tac'chanādan Muppan. Of these five sub-divisions my persuasive powers have so far permitted of my measuring only four Ūrāli Kurumans—a meagre result

³ Brecke's Primitive Tribes of the Nilgiris.

⁴ Aboriginal Tribes of the Nilgiri hills.



for a long march. There is, however, a further sub-division calling themselves Pála Kurumans, who, like the Irulas, live on coffee estates or in the jungles of the eastern slopes of the Nilgiris, and of these, with great difficulty, I succeeded in measuring eleven male individuals. Comparing their principal measurements, though the number is confessedly very few, with those of twenty-five Irulas, and, as a 'control,' with those of the short, broad-nosed Paniyans of the Wynád, the results pan out (to use a mining phrase) as follows :—

	Irula.	Kurumba.	Paniyan.
Height	159·8	158	157·4
Span of arms	169·8	168·9	165·2
Span of arms relative to stature = 100	106·3	106·9	106
Middle finger to patella	10·7	10·7	7·3
Middle finger to patella relative to stature=100	6·7	6·8	4·6
Cubit	45·8	45·5	45·3
Hand, length	17·5	17·5	18·5
Foot, length	24·9	24·9	25
Hips	25·4	25·3	24·3
Cephalic length	18	18	18·4
Cephalic breadth	13·7	13·7	13·6
Bigoniac	9·7	9·6	10
Biszygomatic	12·7	13	12·6
Nasal height	4·4	4·3	4
Nasal breadth	3·7	3·8	3·8
Nasal index	84·9	88·7	95·1
Vertex to chin	20·7	20·6	19·8

Further investigation of the Pála Kurumbas is, of course, necessary (though experience leads me to anticipate no

marked variation from the averages obtained), but the figures afford, I think, evidence of a close affinity between the Irulas and Kurumbas.

In my hunt after Irulas it was necessary to invoke the assistance and proverbial hospitality of various planters, without which my researches would have been barren. On one occasion news reached me that a party of Irula men, women, and children, collected for my benefit under a promise of substantial remuneration, had arrived at a planter's bungalow, whither I proceeded. The party included a man who had been 'wanted' for some time in connection with the shooting of an elephant on forbidden ground. He, suspecting me of base designs, refused absolutely to be measured on the plea that he was afraid the height-measuring standard was the gallows. Nor would he let me take his photograph, doubtless fearing (though he had never heard of Bertillonage) lest it should be used for the purpose of criminal identification.

As the Badagas are the fairest, so the Irulas are the darkest-skinned of the Nilgiri tribes. The name Irula, in fact, as has often been pointed out, means darkness or blackness (Tamil *irul*), whether in reference to the dark jungles in which the Irulas, who have not become domesticated by working as contractors or coolies on planter's estates, dwell, or to the great darkness of their skin, is doubtful. Though the typical Irula is dark-skinned, with broad nose and high nasal index, I have noted some who possessed skins of markedly paler hue and narrow noses. The nasal index of those who were examined ranged between 70 and 80 in seven, between 80 and 90 in eleven, and between 90 and 100 in seven cases; the height of the nose ranging between 4·8 and 3·9 cm. and the breadth between 4·3 and 3·2 cm.

The language of the Irulas is a corrupt form of Tamil. In their religion, they are worshippers of Vishnu under the name of Rangaswāmi, to whom they do puja at their own rude shrines, or at the Hindu temple at Karamadai, where Brāhman priests officiate. In his 'Primitive Tribes of the Nilgiris' Brecks says that, "an Irula pujāri lives near the temples, and rings a bell when he performs puja to the gods. He wears the Vishnu mark on his forehead. His office is hereditary, and he is remunerated by offerings of fruit and milk from Irula worshippers. Each Irula village pays about



IRULA WOMAN.

two annas to the pujāri in May or June. They say that there is also a temple at Kallampalla in the Sattiyamangalam taluk, north of Rangaswāmi's peak. This is a Siva temple, at which sheep are sacrificed: the pujāri wears the Siva mark. They don't know the difference between Siva and Vishnu. At Kallampalla temple is a thatched building containing a stone called Mariamma, a form of Durga, the well-known goddess of small-pox, worshipped in this capacity by the Irulas. A sheep is led also to this temple, and those who offer the sacrifice sprinkle water over it, and cut its throat. The pujāri sits by, but takes no part in the ceremony. The body is cut up, and distributed among the Irulas present including the pujāri."

A village on a coffee estate, which I inspected, was, at the time of my visit, in the possession of pariah dogs and nude children, the elder children and adults being away at work on the estate. The village was protected against nocturnal feline and other feral marauders by a rude fence, and consisted of rows of single-storied dwelling houses, with verandah in front, made of split bamboo and thatched, detached huts, and an abundance of fowl-houses, and cucurbitaceous plants twining up rough stages. Surrounding the village were a dense grove of plantain trees, castor-oil bushes, and cattle-pens.

When not engaged in work on estates, the Irulas cultivate, for their own consumption, rāgi (*Eleusine Coracana*), sāmāi (*Panicum miliare*), tenai (*Setaria italica*), tovarai (*Cajanus indicus*), maize, plantains, &c. They will not attend to cultivation on Saturday or Monday. At the season of sowing Badagas bring cocoanuts, plantains, milk and ghī, and give them to the Irulas, who, after offering them before their swāmi, return them to the Badagas.

The Irulas will (so they say) not eat the flesh of buffaloes or cattle, but will eat sheep and goat, fowls, deer and pig (which they shoot), hares (which they snare with skilfully made nets), jungle-fowl, pigeons, and quail (which they knock over with stones).

The Irulas, as a rule, have one wife. A young man of marriageable age selects a girl for himself, and gives her parents a present of money, varying from thirteen to twenty-five rupees, as a dowry. There is no marriage tali. At the marriage feast, which is of a very simple nature, a sheep is killed, and the guests make a present of four to

eight annas to the bridegroom, who ties up the money in a cloth and goes to the bride's house to conduct her to her future home. Widows are permitted to re-marry. If a woman is barren, her husband may marry a second wife, but has to support the first.

When an Irula dies, two Kurumbas come to the village, and one shaves the head of the other. The shorn man is fed and presented with a cloth, which he wraps round his head. This quaint ceremonial is supposed, in some way, to bring good luck to the departed. Outside the house of the deceased, in which the corpse is kept till the time of the funeral, men and women dance to the music of the Irula band. The dead are buried in a sitting posture with the legs crossed tailorwise. Each village has its own burial ground. A circular pit is dug, from the lower end of which a chamber is excavated, in which the corpse, clad in its own clothes, jewelry, and a new cloth, is placed with a lamp and grain. The pit is then filled in, and the position of the grave marked by a stone. The following description of an annual memorial service was given to me. A lamp and oil are purchased, and rice is cooked in the village. They are then taken to the shrine at the burial ground, offered upon stones on which some of the oil is poured, and puja done. At the shrine a pujāri, with three white marks on the forehead when on duty, officiates. Like the Badaga dēvadāri, the Irula pujāri at times becomes inspired by the god.

The leading characteristics of the Irukals, the system of tattooing, and personal adornment, are summed up in the following cases —

1. Man, aged 30. Sometimes works on a coffee estate. At present engaged in the cultivation of various grains, pumpkins, jack-fruit, and plantains. Goes to the bazar at Mettupālaiyam to purchase rice, salt, chillies, oil, &c. Acquires agricultural implements from Kotas at Kotagiri, to whom he pays annual tribute in grain or money. Wears brass ear-rings acquired from Kotas in exchange for vegetables and fruit. Wears turban and plain loin-cloth, wrapped round body and reaching below the knees. Bag containing tobacco and betel slung over shoulder inside cloth. Skin very dark. Moustache and slight beard. Hair cut short in front, long and tied in a knot behind. Hair feebly developed on body and limbs. Bushy eye-brows,

small, twinkling eyes. Ears outstanding. Prominent cheek bones. Lips thin, not everted.

Height	..	..	..	158.6 cm.
Weight	..	..	..	100 lb.
Chest	..	..	..	79.5 cm.
Shoulders	..	..	..	37.8 "
Span of arms	..	..	..	168 "
Cubit	..	..	..	44.3 "
Hand, length	..	..	..	16.6 "
Foot, length	..	..	..	23.7 "
Cephalic length	..	..	..	18 "
Cephalic breadth	..	..	..	13.5 "
Bigoniac	..	..	..	9.8 "
Bizygomatic	..	..	..	12.8 "
Nasal height	..	..	..	4.4 "
Nasal breadth	..	..	..	3.2 "
Nasal index	..	..	..	72.7
Facial angle (of Cuvier)	..	..	..	69

2. **Man.** Body cloth as No. 1 supplemented by coloured print cloth with brass buttons, and plain loin-cloth. Hair of head not shaved or cut, straggling and tied in a knot behind. Moustache, untrimmed whiskers, and billy-goat beard. Prominent cheek-bones and zygomatic arches. Silver bangle on right wrist.

3. **Man.** Conjunctivæ pigmented. Slight moustache. Bridge of nose broad. Hair rising in very stiff curls all over head.

4. **Man.** Pale by contrast with surrounding men. Hair when undone reaches in wavy locks to middle of back. Ornamental brass ear-rings in each lobe. Brass and glass bead ornaments in each helix. Steel ring on left little finger.

5. **Man.** Wears turban, body-cloth with red and blue stripes, and loin-cloth. Hair curly with no parting, tied in a knot on top. Brass ear-ring in each lobe. Two brass rings on left little finger.

6. **Man.** Head shaved on top *à la Hindu*, and tied in a knot behind.

7. **Man.** Two brass rings in lobe of each ear. Silver bangle on right wrist.

8. **Man.** Brass ear-ring in lobe of each ear. Brass bangle on right wrist. Greenish-yellow irides. Brown moustache.

9. Thin brass ring in helix of each ear. Brass link necklace.

10. Man. Brass ear-ring of Badaga pattern in right lobe. Brass and glass ornament in left lobe. Brass ring on left little finger. Grass necklace.

11. Man. Plug of wood in lobe and helix of each ear. One brass ring and two steel rings on left little finger.

12. Man. Facial angle 60° (very low as compared with the average).

13. Man suffering from leucoderma. Skin of face black with pink patch on forehead. Skin of body and extremities pink and white with dark and light brown patches. Growing bald. Only recognisable as an Irula by very dark face and broad nose.

14. Boy, *æt.* 10. String round neck and right wrist to drive away sickness.

15. Woman, *æt.* 30. Height 144.8 cm. Hair curly, without parting, tied in a bunch behind round black cotton swab. Wears a plain waist-cloth and print cotton body-cloth, worn square across breasts and reaching below knees. Tattooed on forehead. A mass of glass bead necklaces. Gold ornament in left nostril. Brass ornament in lobe of each ear. Eight brass bangles on right wrist; two brass and six glass bangles on left wrist. Five brass rings on right first finger; four brass and one tin ring on right ring-finger.

16. Woman, *æt.* 25. Height 153.3 cm. Hair parted in middle, wavy, tied in a bunch behind. Bushy eyebrows. Red cajan roll in dilated lobes of ears. Brass and glass bead ornament in helix of right ear. Brass ornament in left nostril. A number of bead necklets, one with young cowry shells pendent, another consisting of a heavy roll of black beads. The latter is very characteristic of Irula female adornment (*pl.* VII). One steel bangle, eight brass bangles, and one chank-shell bangle on right wrist; three lead, six glass bangles, and one glass bead bangle on left wrist; one steel and one brass ring on left little finger.

17. Woman, *æt.* 35. Wears loin-cloth only. Breasts fully exposed. Cap of Badaga pattern on head. Massive brass ornament in lobe of each ear. Brass ornament in left nostril. Thirteen brass and two lacquer bangles on right forearm. Four brass rings on right thumb. Four brass



IRULA GIRL.

rings on right second finger. Five brass rings on right ring finger. Six brass rings on right little finger. Five brass rings on left thumb. Four brass rings on left first finger. Four brass rings on left second finger. Seven brass rings on left ring finger. Seven brass rings on left little finger.

Brass ring on second, third and fourth toe of each foot.

18. Woman, æt. 30. Elaborately tattooed across forehead. Red cajan plug in lobe of each ear. Brass and glass bead ornament in each helix. Silver ornament in left nostril. Brass link and glass bead necklaces, one with young cowry shells pendent. A black thread necklet with thread tassel pendent. Ten brass bangles, one chank, and one bead bangle on right wrist. Two silver, three lead, seven glass, and three composition bangles on left wrist. Two silver rings on left little finger. Two brass rings on right second toe.

19. Girl, æt. 16. Red cajan rolls in lobe of each ear. A number of bead necklets. Three steel armlets on right forearm. Nine brass bangles and one chank bangle on right wrist. One chank, two brass, and seven glass bangles on left wrist. Four brass rings on right little finger; three brass rings on left first finger; one brass and one steel ring on left ring-finger.

20. Girl, æt. 14. Height 146.4 cm. Length of foot 23.7 cm. (=16.2 relative to height=100). Very fair in contrast with the surrounding men. Bridge of nose broad and flat (a common type). Body-cloth of striped cotton, worn straight across breasts, and reaching below knees. Print cotton cloth thrown over shoulders and tied in knot in front. Wooden plug in left nostril. Mass of glass bead necklets. Four glass bangles on left wrist. One brass ring on left ring-finger. Two base metal rings on right second toe; a single base metal ring on left second toe.

21. Girl, æt. 15. Tattooed on forehead. Pleasant expression of countenance. Hair without parting, long, wavy. Mass of glass bead necklets. Gold ornament in lobe of each ear. Five glass bangles and one brass bangle on right wrist; four glass bangles, and one brass bangle on left wrist.

22. Girl, æt. 8. Tattooed on forehead. Lobe of each ear being dilated by a number of wooden sticks like matches. Two glass bead necklets, and a necklet consisting of a

heavy roll of black beads. Left nostril pierced. Hair cut short, except a long lock carried over top of head and behind left ear.

23. Girl, æt. 8. Hair parted in middle, long, wavy. Bushy eyebrows. Long, fine hairs on forehead merging into hair of head. (The same hairy growth on the forehead I have noticed as being very prevalent among the Cheruman women of Malabar.) Gold ornaments in left nostril and in lobe of each ear. One brass and eight glass bangles on right wrist; one glass bead and six glass bangles on left wrist.

24. Girl, æt. 9. Tattooed on forehead. Wooden plug in left nostril. Mass of glass bead necklets, one with pendent beads and cowries. Nine brass bangles on right wrist; four brass bangles on left wrist.

25. Baby in arms. Brass ring in lobe of each ear. Steel bangle on left ankle.

TABLE II.
TABLE OF MEASUREMENTS.
IRULAS.

	Max.	Min.	Average.	Mean above.	Mean below.
Weight	140	90	101	125	94
Height	168	152	159.8	162.9	156.8
Height, sitting	86.8	78.7	82	83.6	80.4
Height, kneeling	124.2	111	117.5	119.9	115.6
Height to gladiolus	124.6	115.6	118.7	121.5	116.9
Span of arms	179.6	160	169.8	174.2	165.2
Chest	89	73	79.4	82.5	76.5
Middle finger to patella	14.6	7	10.7	12.9	9.4
Shoulders	42	35.8	38.5	40	37.7
Cubit	49	42.5	45.8	47.2	44.4
Hand, length	19.1	16.3	17.5	18.1	16.7
Hand, breadth	8.6	7.3	8.1	8.4	7.8
Middle finger	12.3	10.5	11.3	11.7	10.9
Hips	26.9	24.1	25.4	26.1	24.8
Foot, length	26.2	23	24.9	25.5	24.1
Foot, breadth	9.4	7.8	8.7	9	8.3
Cephalic length	19.1	17	18	18.4	17.6
Cephalic breadth	14.3	13.1	13.7	14	13.3
Cephalic index	80.9	70.8	75.8	78	73.8
Bigoniac	11.1	9.1	9.7	10.1	9.3
Bizygomatic	13.4	11.9	12.7	13.1	12.3
Maxillo-zygomatic index	84.6	71.9	75.7	78.5	72.7
Nasal height	4.8	3.9	4.4	4.6	4.2
Nasal breadth	4.3	3.2	3.7	3.9	3.5
Nasal index	100	72.3	84.9	93.2	78.4
Vertex to tragus	14.5	11.6	13.5	13.9	13.1
Vertex to chin	22.4	19.2	20.7	21.4	20
Facial angle	72	60	68	70	64

Note.—The results are based on the measurement of twenty-five subjects.

THE PANIYANS OF MALABAR.

The Paniyans are a dark-skinned tribe, short in stature, with broad noses and curly hair, inhabiting the Wynâd and those portions of the Ernâd, Calicut, Kurumbranâd, and Kottayam taluks of Malabar which skirt the base of the ghâts, and the Mudanâd, Cherangôd, and Namblakôd amshams of the Nilgiri district.

A common belief, based on their general appearance, prevails among the European planting community that the Paniyans are of African origin, and descended from ancestors who were wrecked on the Malabar coast. This theory, however, breaks down on investigation. Of their origin nothing definite is known. The Nair Janmis say that, when surprised in the act of some mischief or alarmed, the Paniyan calls out 'Ippi'! 'Ippi'! as he runs away, and they believe this to have been the name of the country whence they came originally; but they are ignorant as to where Ippimala, as they call it, is situated. Kapiri (Africa or the Cape?) is also sometimes suggested as their original habitat, but only by those who have had the remarks of Europeans communicated to them. The Paniyan himself, though he occasionally puts forward one or other of the above places as the home of his fore-fathers, has no fixed tradition bearing on their arrival in Malabar, beyond one to the effect that they were brought from a far-country, where they were found living by a Râja, who captured them, and carried them off in such a miserable condition that a man and his wife only possessed one cloth between them, and were so timid that it was only by means of hunting nets that they were captured.

The number of Paniyans, returned at the Census 1891, was 33,282, and nine sub-divisions were registered; but, as Mr. H. A. Stuart, the Census Commissioner, observes:—"Most of these are not real, and none has been returned by any considerable number of persons." Their position is said to be very little removed from that of a slave, for every Paniyan is some landlord's 'man'; and, though he is, of course, free to leave his master, he is at once traced, and good care is taken that he does not get employment elsewhere.

In the fifties, when planters first began to settle in the Wynâd, they purchased the land with the Paniyans living on it, who were practically slaves of the land-owners. The Paniyans used formerly to be employed by rich receivers as



PANIYAN MAN.

professional coffee thieves, going out by night to strip the bushes of their berries, which were delivered to the receiver before morning. Unlike the Badagas of the Nilgiris, who are also coffee thieves, and are afraid to be out after dark, the Paniyans are not afraid of bogies by night, and would not hesitate to commit nocturnal depredations. My friend, Mr. G. Romilly, on whose estate my investigation of the Paniyans was mainly carried out, assures me that, according to his experience, the domesticated Paniyan, if well paid, is honest, and fit to be entrusted with the responsible duties of night watchman.

In some localities, where the Janmis have sold the bulk of their land, and have consequently ceased to find regular employment for them, the Paniyans have taken kindly to working on coffee estates, but comparatively few are thus employed. The word Paniyan means labourer, and they believe that their original occupation was agriculture, as it is, for the most part, at the present day. Those, however, who earn their livelihood on estates, only cultivate rice and rāgi (*Eleusine coracana*) for their own cultivation; and women and children may be seen digging up jungle roots, or gathering pot-herbs for food. They will not eat the flesh of jackals, snakes, vultures, lizards, rats, or other vermin. But I am told that they eat land-crabs, in lieu of expensive lotions, to prevent baldness and grey hairs. They have a distinct partiality for alcohol, and those who came to be measured by me were made more than happy by a present of a two-anna piece, a cheroot, and a liberal allowance of undiluted fiery brandy from the Meppādi bazār. The women are naturally of a shy disposition, and used formerly to run away and hide at the sight of a European. They were at first afraid to come and see me, but confidence was subsequently established, and all the women came to visit me, some to go through the ordeal of measurement, others to laugh at and make derisive comments on those who were undergoing the operation.

Practically the whole of the rice cultivation in the Wynād is carried out by the Paniyans attached to the edoms (houses or places) or dévasoms (temple property) of the great Nair landlords; and Chettiyars and Moplahs also frequently have a few Paniyans, whom they have bought or hired by the year at from four to eight rupees per family from a Jenmi. When planting paddy or herding cattle,

the Paniyan is seldom seen without the kontay or basket-work protection from the rain. This curious, but most effective substitute for the umbrella-hat of the Malabar coast, is made of split reeds interwoven with arrow-root leaves, and shaped something like a huge inverted coal-scoop turned on end, and gives to the individual wearing it the appearance of a gigantic mushroom. From the nature of his daily occupation the Paniyan is often brought in contact with wild animals, and is generally a bold, and, if excited, as he usually is on an occasion such as the netting of a tiger, a reckless fellow. The young men of the villages vie with each other in the zeal which they display in carrying out the really dangerous work of cutting back the jungle to within a couple of spear-lengths of the place where the quarry lies hidden, and often make a show of their indifference by turning and conversing with their friends outside the net.

Years ago it was not unusual for people to come long distances for the purpose of engaging Wynnâd Paniyans to help them in carrying out some more than usually desperate robbery or murder. Their mode of procedure, when engaged in an enterprise of this sort, is evidenced by two cases, which had in them a strong element of savagery. On both these occasions the thatched homesteads were surrounded at dead of night by gangs of Paniyans carrying large bundles of rice straw. After carefully piling up the straw on all sides of the building marked for destruction, torches were, at a given signal, applied, and those of the wretched inmates who attempted to escape were knocked on the head with clubs, and thrust into the fiery furnace.

The Paniyans settle down happily on estates, living in a settlement consisting of rows of huts and detached huts, single or double storied, built of bamboo and thatched. During the hot weather, in the unhealthy months which precede the advent of the south-west monsoon, they shift their quarters to live near streams, or in other cool, shady spots, returning to their head-quarters when the rains set in.

They catch fish either by means of big flat bamboo mats, or, in a less orthodox manner, by damming a stream, and poisoning the water with herbs, bark, and fruit, which are beaten to a pulp and thrown into the water. The fish, becoming stupified, float on the surface, and fall an easy and unfairly earned prey.

The Paniyan language is a debased Malayalam patois, spoken in a curious nasal sing-song, difficult to imitate; but most of the Paniyans employed on estates can also converse in Kanarese.

Wholly uneducated and associating with no other tribes, the Paniyans have only very crude ideas of religion. Believing in devils of all sorts and sizes, and professing to worship the Hindu divinities, they reverence especially the god of the jungles, Kād Bagavādi, or according to another version, a deity called Kūli, a malignant and terrible being of neither sex, whose shrines take the form of a stone placed under a tree, or sometimes a cairn of stones. At their rude shrines they contribute as offerings to the swāmi rice boiled in the husk, roasted and pounded, half-a-cocoonut, and small coins. The banyan and a lofty tree, apparently of the fig tribe, are revered by them, inasmuch as evil spirits are reputed to haunt them at times. Trees so haunted must not be touched, and, if the Paniyans attempt to cut them, they fall sick.

Some Paniyans are believed to be gifted with the power of changing themselves into animals; and there is a belief among the Paniyan dwellers in the plains that, if they wish to secure a woman whom they lust after, one of the men gifted with this special power, goes to her house at night with a hollow bamboo, and encircles the house three times. The woman then comes out, and the man, changing himself into a bull or dog, works his wicked will. The woman, it is believed, dies in the course of two or three days.

Monogamy appears to be the general rule among the Paniyans, but there is no obstacle to a man taking unto himself as many wives as he can afford to support.

Apparently the bride is selected for a young man by his parents, and, in the same way that a wealthy European sometimes sends his betrothed a daily present of a bouquet, the more humble Paniyan bridegroom-elect has to take a bundle of firewood to the house of his fiancée every day for six months. The marriage ceremony (and the marriage knot does not appear to be very binding) is of a very simple nature. The ceremony is conducted by a Paniyan Chemi (a corruption of Janmi). A present of sixteen fanams (coins) and some new cloths is given by the bridegroom to the Chemi, who hands them over to the parents of the bride. A feast is prepared, at which the Paniyan women (Panichis)

dance to the music of drum and pipe. The tali (or marriage badge) is tied round the neck of the bride by the female relations of the bridegroom, who also invest the bride with such crude jewelry as they may be able to afford. The Chemi seals the contract by pouring water over the head and feet of the young couple. A man may, I was told, not have two sisters as wives; nor may he marry his deceased wife's sister. Re-marriage of widows is permitted. Adultery and other forms of vice are adjudicated on by a panchayat (or council) of headmen, who settle disputes and decide on the fine or punishment to be inflicted on the guilty. At nearly every considerable Paniyan village there is a headman called Kuttan, who has been appointed by the Nair Janmi to look after his interests, and be responsible to him for the other inhabitants of the village. The investiture of the Kuttan with the powers of office is celebrated with a feast and dance, at which a bangle is presented to the Kuttan as a badge of authority. Next in rank to the Kuttan is the Mudali or head of the family, and they usually constitute the panchayat. Both Kuttan and Mudali are called Moopenmar or headman. In a case of proved adultery a fine of sixteen fanams (the amount of the marriage fee), and a sum equal to the expenses of the wedding, including the present to the parents of the bride, is the usual form of punishment.

No ceremony takes place in celebration of the birth of children. One of the old women of the village acts as midwife, and receives a small present in return for her services. As soon as a child is old enough to be of use, it accompanies its parents to their work, or on their fishing and hunting expeditions, and is initiated into the various ways of adding to the stock of provisions for the household.

The dead are buried in the following manner:—A trench, four or five feet deep, and large enough to receive the body to be interred, is dug, due north and south, on a hill near the village. At the bottom of this excavation the earth is scooped out from the western side on a level with the floor throughout the length of the grave, so as to form a receptacle for the corpse, which, placed on a mat, is laid therein upon its left side with the head pointing to the south and the feet to the north. After a little cooked rice has been put into the grave for the use of the departed spirit, the mat, which has been made broad enough for the purpose, is

PL. IX

GROUP OF PANIYANS.

folded up and tucked in under the roof of the cavity, and the trench filled up. It has probably been found by experience that the corpse, when thus protected, is safe from the ravages of scavenger jackals and pariah dogs. For seven days after death a little rice gruel is placed at distance of from fifty to a hundred yards from the grave by the Chemi, who claps his hands as a signal to the evil spirits in the vicinity, who, in the shape of a pair of crows, are supposed to partake of the food, which is hence called *kāka conji* or crow's rice.

The noombu or mourning ceremonies are the *tī polay*, seven days after death; the *kāka polay* or *karuvelli* held for three years in succession in the month of Magaram (January-February); and the *matham polay* held once in every three or four years, when possible, as a memorial service in honour of those who are specially respected. On all these occasions the Chemi presides, and acts as a sort of master of the ceremonies. As the ceremonial carried out differs only in degree, an account of the *kāka polay* will do for all.

In the month of Magaram the noombu karrans or mourners (who have lost relatives) begin to cook and eat in a pandal or shed set apart from the rest of the village, but otherwise go about their business as usual. They wash and eat twice a day, but abstain from eating meat or fish. On the last day of the month, arrangements are made, under the supervision of the Chemi, for the ceremony which brings the period of mourning to a close. The mourners, who have fasted since daybreak, take up their position in the pandal, and the Chemi, holding on his crossed arms two winnowing sieves, each containing a seer or two of rice, walks round three times, and finally deposits the sieves in the centre of the pandal. If, among the male relatives of the deceased, one is to be found sufficiently hysterical, or actor enough, to simulate possession and perform the functions of an oracle, well and good; but should they all be of a stolid temperament, there is always at hand a professional corresponding to the Komaran or Villichipād of other Hindus. This individual is called the *Patalykaran*. With a new cloth (*mundu*) on his head, and smeared on the body and arms with a paste made of rice flour and *ghī* (clarified butter), he enters on the scene with his legs girt with bells, the music of which is supposed to drive away the attendant evil spirits (*payan mar*). Advancing with

short steps and rolling his eyes, he staggers to and fro, sawing the air with two small sticks which he holds in either hand, and works himself up into a frenzied state of inspiration, while the mourners cry out and ask why the dead have been taken away from them. Presently a convulsive shiver attacks the performer, who staggers more violently and falls prostrate on the ground, or seeks the support of one of the posts of the pandal, while he gasps out disjointed sentences, which are taken to be the words of the god. The mourners now make obeisance, and are marked on the forehead with the paste of rice flour and ghī. This done, a mat is spread for the accommodation of the headmen and Chemi; and the Patalykaran, from whose legs the bells have been removed and put with the rice in the sieves, takes these in his hands, and, shaking them as he speaks, commences a funeral chant, which lasts till dawn. Meanwhile food has been prepared for all present except the mourners, and when this has been partaken of, dancing is kept up round the central group till daybreak, when the pandal is pulled down and the kaka polay is over. Those who have been precluded from eating make up for lost time, and relatives, who have allowed their hair to grow long, shave. The ordinary Paniyan does not profess to know the meaning of the funeral orations, but contents himself with a belief that it is known to those who are initiated.

The women attend the ceremony, but do not take part in the dance. In fact, the nearest approach to a dance that they ever attempt (and this only on festive occasions) resembles the ordinary occupation of planting rice, carried out in dumb show to the music of a drum. The bodies of the performers stoop and move in time with the music, and the arms are swung from side to side as in the act of placing the rice seedlings in their rows. To see a long line of Paniyan women, up to their knees in the mud of a rice field, bobbing up and down and putting on the pace as the music grows quicker and quicker, and to hear the wild yells of Hou! Hou! like a chorus of hungry dogs, which form the vocal accompaniment as they dab the green bunches in from side to side, is highly amusing.

The foregoing account of the Paniyan death ceremonies was supplied by Mr. Colin Mackenzie, to whom, as also to Mr. Fred. Fawcett, Mr. George Romilly, and Mr. Martelli.

PL. X

PANIYAN WOMAN

I am indebted for many of the facts recorded in the present note. From Mr. Fawcett the following account of a further ceremony was obtained :—

At a Paniyan village, on a coffee estate where the annual ceremony was being celebrated, men and boys were dancing round a wooden upright to the music of a small drum hanging at the left hip. Some of the dancers had bells round the leg below the knee. Close to the upright a man was seated, playing a pipe, which emitted sounds like those of a bagpipe. In dancing, the dancers went round against the sun. At some little distance a crowd of females indulged in a dance by themselves. A characteristic of the dance, specially noticeable among the women, was stooping and waving of the arms in front. The dancers perspired freely, and kept up the dance for many hours to rhythmic music, the tune of which changed from time to time. There were three chief dancers, of whom one represented the goddess, the others her ministers. They were smeared with streaks on the chest, abdomen, arms and legs, had bells on the legs, and carried a short stick about two feet in length in each hand. The sticks were held over the head, while the performers quivered as if in a religious frenzy. Now and again the sticks were waved or beaten together. The Paniyans believe that, when the goddess first appeared to them, she carried two sticks in her hands. The mock goddess and her attendants, holding the sticks above the head and shivering, went to each male elder, and apparently received his blessing, the elder placing his hand on their faces as a form of salutation and then applying his hand to his own face. The villagers partook of a light meal in the early morning, and would not eat again until the end of the ceremony, which concluded by the man-goddess seating himself on the upright and addressing the crowd on behalf of the goddess concerning their conduct and morality.

Games.—A long strip of cane is suspended from the branch of a tree, and a cross-bar fixed to its lower end. On the bar a boy sits and swings himself in all directions. In another game a bar, twelve to fourteen feet in length, is balanced by means of a point in a socket on an upright reaching about four feet and-a-half above the ground. Over the end of the horizontal bar a boy hangs, and, touching the ground with the feet, spins himself round.

The Paniyans are, as already stated, of low stature, dark-skinned, with curly hair and broad noses. The great

breadth relative to the height of the nose is brought out by the following table of nasal indices, which ranged between 83·7 and 108·6 in the men, and between 82·5 and 119·4 in the women :—

NASAL INDEX.

Men.	No.	Women.	No.
80-90	6	80-90	6
90-100	9	90-100	2
100-110	10	100-110	3
	—	110-120	1
	25		—
	—		12
			—

The average height of the men, according to my observations, is 157·4 cm., and of the women 146 cm. The men have very long hands and feet. The average length of the latter (25 cm.), in fact, exceeds the average breadth of the hips (24·3 cm.) by 7 cm.—a difference in favour of the foot greater than in any of the other tribes which I have as yet investigated. The average distance from the middle finger to the patella is (in men) only 4·6 cm. relative to stature = 100, and approximates very closely to the recorded results of measurement of long-limbed African Negroes.

The leading characteristics of the Paniyans, and their decoration with cheap jewelry, are summed up in the following descriptive cases :—

1. Man, æt. 30. Of sturdy build and muscular. Skin very dark. Hair of head clipped short in front so as to form a fringe. Long, wavy curls reaching down to shoulders. Long tail of matted hair worn as a vow, hanging down back. Thread tied round right wrist as a charm to drive away fever, from which he suffers. Hair of body only well developed in axillæ and over pubic region. Conjunctivæ injected and pigmented. Iris very dark. Large, pendulous lobes to ears, which are pierced. Five brass rings in right ear, four in left. Nose as broad as high. Lips thick, everted. Not prognathous. Three copper, three brass rings, and a single steel ring on right ring-finger. Clothing consists of a plain loin-cloth reaching below knees, langūti, and belt of European design round loins.

Height	154.6 cm
Weight	94 lb.
Chest	84 cm.
Shoulders	36.4 "
Span of arms	160.4 "
Cubit	44 "
Hand, length	17.5 "
Foot, length	24.6 "
Cephalic length	18.4 "
Cephalic breadth	14 "
Bignoniac	10 "
Bizygomatic	12.4 "
Nasal height	3.8 "
Nasal breadth	3.8 "
Nasal index	100
Facial angle (of Cuvier)	66°

2. Man, æt. 25. Hair of head a dense mass of short curls with no parting. Lower lip much everted. Lobes of ears large and pendulous. Conjunctivæ injected. Square face. Nasal index 108.6. Twelve brass rings, removed from fingers while he is at work, tied up in loin-cloth. Thread round right wrist to ward off fever.

3. Man, æt. 40-45. Hair exceptionally well developed on chest, abdomen, legs, and back. Bald on top of head. Seven steel rings on little finger.

4. Man, æt. 25. Mass of tufted curly hair standing out like a mop. Pot-bellied.

5. Man. Steel bangle on right forearm. Three brass rings on each ring-finger; two brass rings on each little finger. Three brass rings in each ear.

6. Man. Two brass rings on right little finger; one copper and one steel ring on left little finger.

7. Man. Short, thin, matted tail, and long, broad, matted tail of hair hanging down back, worn as a vow.

8. Man. Thread round left ankle as a charm against sickness.

9. Man. Chunam (lime) smeared over throat to cure cough.

10. Boy, æt. 8. Long, curly hair parted in middle line. Brass ear-rings. Steel bangle on right wrist.

11. Woman, {æt. 20-25. Fat, squat, and uncomely. Skin very dark. Hair of head a dense mass of short curls

without parting, reaching behind to nape of neck. Nose considerably broader than long. Lips thick and everted. Lobes of ears enormously dilated by cajan ornaments. Iris very dark. Square face. Tattooed with a circle between eye brows. Two brass bangles on left wrist. Brass ring on left little finger. Outer clothing consists of a plain dirty cloth covering the body and tied in front in a knot.

Height	..	..	..	144.8 cm.
Weight	..	..	..	92 lb.
Shoulders	..	..	..	34.2 cm.
Cubit ..	..	..	..	40.1 "
Hand, length	..	..	..	17 "
Foot, length ..	..	..	..	23.4 "
Cephalic length	..	..	..	18 "
Cephalic breadth	..	..	..	13.7 "
Bigoniac	..	..	..	10 "
Bizygomatic ..	..	..	..	12 "
Nasal height	..	..	..	3.1 "
Nasal breadth	..	..	..	3.7 "
Nasal index ..	..	..	..	119.4
Facial angle ..	..	..	..	66°

12. Woman, æt. 25-30. Long, curly hair reaching below shoulders. Lobes of ears completely torn across as the result of dilatation by cajan ornaments. Long, brass link ear-rings in helix of ears. Steel bangle on left wrist.

13. Woman. Thirty-one brass and steel rings tied up in her cloth. Left nostril pierced and plugged with wood.

14. Woman. Wears string round neck as charm to cure sores.

15. Woman. Hair of head cut short all over as a sign of mourning for her dead husband. Four brass bangles on left forearm. Glass bead necklet.

16. Girl, æt. 8. Hair in long, wavy curls ; cut in front so as to form a fringe. Left nostril pierced and plugged with wood. Brass ear-rings in helix of each ear. Lobes of ears being gradually dilated by cajan-roll ornaments.

TABLE III.
SUMMARY OF MEASUREMENTS.
PANIYAN MEN.

	Max.	Min.	Average.	Mean above.	Mean below.
Weight	120	89	99.6	104	94
Height	171.6	152	157.4	161.4	153.6
Height, sitting	87	77.6	81.3	83.4	79.4
Height, kneeling	125.6	111.7	115.9	118.5	113.9
Height to gladiolus	130.8	111.4	117.1	120.1	114.7
Span of arms	180.2	148.4	165.2	170	160.7
Chest	86.5	77.5	81.5	83.4	79.6
Middle finger to patella ...	10.2	4.2	7.3	8.5	5.8
Shoulders	38.5	34.2	35.9	36.9	34.9
Cubit	49.4	40	45.3	46.9	44
Hand, length... ..	20	15	18.5	19.1	17.7
Hand, breadth	8.6	7	7.8	8.2	7.5
Middle finger	12.1	10.1	11.4	11.8	11.1
Hips	26.2	23	24.3	25.1	23.7
Foot, length	26.7	22.5	25	26	24.2
Foot, breadth	9	7.7	8.2	8.5	8
Cephalic length	19.3	17.5	18.4	18.7	18
Cephalic breadth	14.9	13	13.6	14.1	13.3
Cephalic index	81.1	69.4	74	76.3	72
Bigoniac	11.1	9.1	10	10.4	9.5
Biszygomatic	13.4	11.8	12.6	13	12.4
Maxillo-zygomatic index ...	86.6	72.7	78.9	80.9	75.3
Nasal height	4.8	3.3	4	4.2	3.7
Nasal breadth	4.2	3.2	3.8	4	3.6
Nasal index	108.6	83.7	95.1	100.9	88.2
Vertex to tragus	12.8	11.6	12.3	12.6	12
Vertex to chin	21	18.5	19.8	20.1	19.3
Facial angle	71	65	67	69	66

Note.—The results are based on the measurements of twenty-five subjects.

TABLE IV.
SUMMARY OF MEASUREMENTS.
PANIYAN WOMEN.

	Max.	Min.	Average.	Mean above.	Mean below.
Weight	101	72	84·8	92	78·3
Height	155	134·1	146	150·9	141·2
Height, sitting	80·8	71·6	75·1	78·3	72·9
Height, kneeling	114·6	100	107·9	111·4	104·4
Span of arms	161·2	138·8	152	156·9	146·4
Shoulders	36·8	31·5	33·2	34·4	32·4
Cubit	43·8	37·8	43·3	43·5	40·7
Hand, length	18·8	15·5	17·1	18	16·5
Hand, breadth	7·6	6·8	7·2	7·5	7
Middle finger	11·7	9·8	10·8	11·3	10·4
Foot, length	24·2	20·7	22·8	23·6	21·9
Foot, breadth	8·1	7·1	7·6	7·8	7·3
Cephalic length	18·5	17	17·5	18·1	17·2
Cephalic breadth	13·7	12·2	13·1	13·4	12·8
Cephalic index	80·6	70·8	74·9	77·3	72·6
Bigonial	10	9	9·5	9·7	9·3
Bizygomatic	12·9	11·7	12·1	12·5	11·9
Maxillo-zygomatic index	83·3	73·2	78·5	81	76·2
Nasal height	4·3	3·1	3·6	4	3·4
Nasal breadth	3·7	3	3·4	3·6	3·2
Nasal index	119·4	82·5	94·3	105·7	87·5
Vertex to tragus	12·5	11·4	11·9	12·3	11·7
Vertex to chin	19·8	17·7	18·5	19·1	18
Facial angle	72	64	67	69	65

Note.—The results are based on the measurements of twelve subjects.

ON A CHINESE-TAMIL CROSS.

Halting in the course of a recent anthropological expedition on the western side of the Nilgiri plateau, in the midst of the Government Cinchona plantations, I came across a small settlement of Chinese, who have squatted for some years on the slopes of the hills between Naduvatam and Gudalūr, and developed, as the result of 'marriage' with Tamil pariah women, into a colony, earning an honest livelihood by growing vegetables, cultivating coffee on a small scale, and adding to their income from these sources by the economic products of the cow. An ambassador was sent to this miniature Chinese Court with a suggestion that the men should, in return for monies, present themselves before me with a view to their measurements being recorded. The reply which came back was in its way racially characteristic as between Hindus and Chinese. In the case of the former, permission to make use of their bodies for the purposes of research depends essentially on a pecuniary transaction, on a scale varying from two to eight annas. The Chinese, on the other hand, though poor, sent a courteous message to the effect that they did not require payment in money, but would be perfectly happy if I would give them, as a memento, copies of their photographs.

The measurements of a single family, excepting a widowed daughter whom I was not permitted to see, and an infant in arms, who was pacified with cake while I investigated its mother, are recorded in the following table :

TABLE V.

		Cephalic length.	Cephalic breadth.	Cephalic index.	Nasal height.	Nasal breadth.	Nasal index.
Tamil Pariah	Mother of children.	18.1	13.9	76.8	4.7	3.7	78.7
Chineseo	Father of children.	18.6	14.6	78.5	5.3	3.8	71.7
Chinese-Tamil	Girl, aged 16	17.6	14.1	80.1	4.7	3.2	68.1
Chinese-Tamil	Boy, aged 10	18.1	14.3	79	4.6	3.3	71.7
Chinese-Tamil	Boy, aged 9	17	14	82.4	4.4	3.3	72.7
Chinese-Tamil	Boy, aged 5	17.1	13.7	80.1	4.1	2.8	68.3

The father was a typical Chinaman, whose only grievance was that, in the process of conversion to Christianity, he had been obliged to 'cut him tail off.' The mother was a typical Tamil Pariah of dusky hue. The colour of the children was more closely allied to the yellowish tint of the father than to the dark tint of the mother; and the semi-mongol parentage was betrayed in the slant eyes, flat nose, and (in one case) conspicuously prominent cheek-bones.

To have recorded the entire series of measurements of the children would have been useless for the purpose of comparison with those of the parents, and I selected from my repertoire the length and breadth of the head and nose, which plainly indicate the paternal influence on the external anatomy of the offspring. The figures given in the table bring out very clearly the great breadth, as compared with the length of the heads of all the children, and the resultant high cephalic index. In other words, in one case a mesaticephalic (79), and, in the remaining three cases, a sub-brachycephalic head (80.1; 80.1; 82.4) has resulted from the union of a mesaticephalic Chinaman (78.5) with a sub-dolichocephalic Tamil Pariah (76.8). How great is the breadth of the head in the children may be emphasised by noting that the average head-breadth of the adult Tamil Pariah man is only 13.7 cm., whereas that of the three boys, aged ten, nine, and five only, was 14.3, 14, and 13.7 cm. respectively.

Quite as strongly marked is the effect of paternal influence on the character of the nose; the nasal index, in the case of each child (68.1; 71.7; 72.7; 68.3), bearing a much closer relation to that of the long nosed father (71.7) than to the typical Pariah nasal index of the broad-nosed mother (78.7).

It will be interesting to note, hereafter, what is the future of the younger members of this quaint little colony, and to observe the physical characters, temperament, improvement or deterioration, fecundity, and other points relating to the cross-breed resulting from the union of Chinese and Tamil.

NOTE ON A CHERUMAN SKULL.

The Cherumans are a large caste, of low stature, very dark-skinned, and platyrrhinian (with wide nasal skeleton), inhabiting Malabar, where they were formerly agrestic slaves, and now work for the most part as field labourers.

The skull, which forms the subject of the present note, is that of an old man without the lower jaw.

Alveolar process of superior maxilla absorbed. Superciliary ridges feebly developed. Serrations of coronal suture between frontal and parietal bones not developed for about 3.6 cm. on each side of the median line; lateral serrations fine. Serrations of sagittal and lambdoid sutures coarse. Parietal eminences very prominent, the skull narrowing gradually from a breadth of 13.1 cm. across these eminences to a maximum breadth of 10.6 cm. across the lateral surfaces of the frontal bone. A small wormian bone, 1.5 cm. long and 1 cm. maximum breadth, in the position of the anterior fontanelle at the junction of the coronal and sagittal sutures. A large wormian bone, 2 cm. long and 3 cm. maximum breadth, in the position of the posterior fontanelle at the junction of the sagittal and lambdoid sutures. Axes of orbits nearly horizontal.

Profile of nasal bones concave. Nasal spine large. Antero-posterior arch elevated in parietal region. Horizontal arch prominent in parietal region. Transverse arch somewhat pointed in parietal region.

Max : length from glabella	..	..	17.5 cm.
Max : transverse breadth	..	..	13.1 "
Cephalic index	..	..	74.9
Min : frontal breadth	..	..	9.1 cm.
Horizontal circumference	..	..	50 "
Ant-posterior curve (nasion to basion) :—			
Frontal	..	Tape 12.3 cm.	Callipers 10.5 cm.
Parietal ⁵	..	Do. 14.7 "	Do. 12.2 "
Occipital	..	Do. 14 "	Do. 10.5 "
Basio-nasal length	..	..	9.4 cm.
Basio-alveolar length	..	..	8.2 "
Bizygomatic breadth	..	..	12.3 "
Nasio-alveolar length	..	..	5.1 "
Nasal height	..	..	4.6 "
Nasal breadth	..	..	2.4 "
Nasal index	..	..	54.3
Orbital breadth	..	..	3.9 cm.
Orbital height	..	..	2.8 "

⁵ Including wormian bones.

The following averages of the head-measurements of twenty-five living Cheruman men are recorded for comparison, so far as is possible, with those of the single skull :—

			Living subject.	Skull.
			CM.	CM.
Cephalic length	..	..	18·3	17·5
Cephalic breadth	..	..	13·5	13·1
Cephalic-index	..	..	73·9	74·9
Bigoniac	..	..	9·9	..
Bizygomatic	..	..	12·6	12·3
Maxillo-zygomatic index	..	..	79·6	..
Nasal height	..	..	4·4	4·6
Nasal breadth	..	..	3·4	2·4
Nasal index	..	..	78·1	54·3

A character, with which I am very familiar, when measuring all sorts and conditions of Natives of Southern India, and is well marked in the Cheruman skull and skulls of Pariahs, 'Hindus,' 'Telugus' and a Brāhman in my possession, is the absence of convexity of the segment formed by the posterior portion of the united parietal bones. The result of this absence of convexity is that the back of the head, instead of forming a curve gradually increasing from the top of the head towards the occipital region, as in the European skull figured in plate xi. 1, forms a flattened area of considerable length almost at right angles to the base of the skull as in the 'Hindu' skull represented in plate xi. 2. And to the existence of this character is due, in large measure, the short length of head in Irulas, Kongas and Koramans, which is referred to hereafter (p. 50).

Some time ago, when passing through the Museum library, I found a student busily engaged in copying extracts from one of my publications, and sympathetically asked him with what object he was so doing. The uncomplimentary, but innocent, reply came forth : "Unfortunately for us it is one of our text-books." The same fate is presumably destined for the present bulletin, which will, I fear, have to be studied by candidates for the M.A. degree of the Madras University in history, which includes ethnology with special reference to the Indian Peninsula. It is, therefore, not out of place to record (*vide* Tables vi and vii) as a lesson in comparative craniometry, the more important measurements of a series of skulls, the property of the Madras Medical College, which constitute a loan-collection in the anthropological section of the Museum, where they are available



SKULLS OF EUROPEAN AND HINDU.

for study. The number of the skulls is confessedly small for the purpose of generalisation, but analysis of the measurements, combined with examination of the skulls, will nevertheless not be labour lost. As a guide to the main points which should be observed, the following summary may be of use :—

(a) The greater maximum length and horizontal circumference of the skulls of the Europeans and Jew, as compared with the others.

(b) The brachycephalic character, and consequent high cephalic index of the Mongolian, Andamanese, Cinghalese, and Burmese skulls.

(c) The prevailing narrow frontal region of the skulls of the four South Indian classes, Muhammadans, Hindus, Brāhman, and Cheruman.

(d) The difference between the nasal skeletons of the platyrrhine (broad-nosed) Negro, with high nasal index, and the leptorrhine (narrow-nosed) European.

(e) The marked prognathism of the skulls of Negroes.

TABLE VI.
COMPARISON OF MEASUREMENTS OF SKULLS.

	Maximum length from glabella.	Maximum trans- verse breadth.	Cephalic index.	Minimum frontal breadth.	Horizontal circum- ference.	Nasal height.	Nasal breadth.	Nasal index.
European	19	14.2	74.7	9.9	55	4.7	2.5	53.2
European	18.6	14.6	78.5	9.7	53.5	5.6	2.1	37.5
Jew	19.3	14.9	74.1	10.8	56.3	5.8	2.6	44.8
Muhammadian ...	18.2	13	71.4	9.2	51.6	5.2	2.6	50
Muhammadian ...	17.2	13.6	79.1	9.2	49.5	4.8	2.4	50
Muhammadian ...	17.6	13.5	76.7	8.7	50.2	4.3	2.1	48.8
Muhammadian ...	17.5	12.6	72	9.1	49.7	4.4	2.5	56.8
Tamil Hindu ...	17.5	13.5	77.1	9.3	51	4.7	2	42.6
Tamil Hindu ...	17.5	13.1	74.9	9.1	49.8	5.4	2.5	46.3
Tamil Hindu ...	17.3	12.9	74.6	9.1	50	4.8	2.5	52.1
Tamil Hindu ...	18	13.4	74.4	10	51.5	4.5	2.6	57.8
Tamil Hindu ...	18.4	13.9	75.5	9.5	52.8	4.8	2.1	43.8
Tamil Hindu ...	17.4	13	74.7	9.6	50	5	2.5	50
Tamil Hindu ...	18	13.4	74.4	9.1	51.8	4.9	2.5	51
Brāhman	17.7	13.3	75.1	9.1	49.7	4.5	2.5	55.6
Cheruman	17.5	13.1	74.9	9.1	50	4.6	2.4	52.2
Negro	17.1	12.9	75.4	9	49.6	4.5	2.4	53.3
Negro	17.8	12.9	72.5	9.9	51	4.6	2.8	60.9
Mongolian	17.6	14.3	81.2	9.5	52.1	4.8	2.6	54.2
Mongolian	17.8	14.5	81.5	9.2	52.8	5.2	2.6	50
Andamanese ...	16.1	13.4	83.2	8.5	48	4	2.2	55
Cinghalese	17.4	14.8	85.1	9.9	53	5.2	2.5	48.1
Burmese	16.4	14.2	86.6	9.8	51.3	5.4	2.5	46.3

TABLE VII.
AVERAGES OF MEASUREMENTS OF SKULLS.

		Maximum length from glabella.	Maximum trans- verse breadth.	Cephalic index.	Minimum frontal breadth.	Horizontal circum- ference.	Nasal height.	Nasal breadth.	Nasal index.
2 Europeans	...	18.8	14.4	76.6	9.8	54.3	5.2	2.3	45.4
1 Jew	...	19.3	14.9	74.1	10.8	56.3	5.8	2.6	44.8
4 Muhammadans	...	17.6	13.2	74.8	9.1	50.3	4.7	2.4	51.4
7 Hindus	...	17.7	13.3	75	9.4	50.1	4.9	2.4	49.1
1 Brahman	...	17.7	13.3	75	9.1	49.7	4.5	2.5	55.6
1 Cheruman	...	17.5	13.1	74.9	9.1	50	4.6	2.4	54.3
2 Negroes	...	17.5	12.9	74	9.5	50.3	4.6	2.6	57.2
2 Mongolians	...	17.7	14.4	81.4	9.4	52.5	5	2.6	52.1
1 Andamanese	...	16.1	13.4	88.2	8.5	48	4	2.2	55
1 Cinghalese	...	17.4	14.8	85.1	9.9	53	5.2	2.5	48.1
1 Burmese	...	16.4	14.2	86.6	9.8	51.3	5.4	2.5	46.3

KURUBA OR KURUMBA ?

As an introduction to the study of this intricate question, it will be best to commence by quoting the opinions of various writers, who have entered superficially into it.

Madras Census Report, 1891.—“The Kurumbas or Kurubas are numerous in Kurnool, Cuddapah, Bellary, Anantapur, North Arcot, South Arcot, Salem, Coimbatore, Trichinopoly and Madura. They are the modern representatives of the ancient Kurumbas or Pallavas, who were once so powerful throughout Southern India, but very little trace of their greatness now remains. In the seventh century the power of the Pallava Kings seems to have been at its zenith; but shortly after this, the Kongu, Chóla and Chálúkyas chiefs succeeded in winning several victories over them. The final overthrow of the Kurumba sovereignty was effected by the Chóla king Ádondai about the seventh or eighth century A.D., and the Kurumbas were scattered far and wide. Many fled to the hills, and in the Nilgiris and the Wynaad, in Coorg and Mysore, representatives of this ancient race are now found as wild and uncivilised tribes. Elsewhere the Kurumbas are more advanced, and are usually shepherds and weavers of coarse woollen blankets.”

“Kuruman.—This caste is found in the Nilgiris and the Wynaad, with a slight shrinkling in the Nilambúr and Attapádi hills in Malabar. Their principal occupations are wood-cutting and the collection of forest produce. The name is merely another form of Kurumban, but, as they differ considerably from the ordinary Kurumbas, it seemed better to show them separately. I think, however, that they were originally identical with the shepherd Kurumbans, and their present separation is merely the result of their isolation in the fastnesses of the Western Ghâts, to which their ancestors fled or gradually retreated after the downfall of the Kurumba dynasty. The name Kurumbranád, a sub-division of Malabar, still bears testimony to their once powerful position.”—H. A. STUART.

Mysore Census Report, 1891—Kádu Kuruba or Kurumba. —“The tribal name of Kuruba has been traced to the primeval occupation of the race, *vis.*, the tending of sheep, perhaps when pre-historic man rose to the pastoral stage. The civilised Úor ru Kurubas, who are genuine tillers of the soil, and who are dotted over the country in populous and thriving communities, and many of whom have under the present ‘Pax Britannica’ further developed into enterprising trades-



KURUBA MAN.

men and withal lettered Government officials, are the very antipodes of the Kádu or wild Kurubas or Kurumbás. The latter, like the Iruligás and Sólígás, are the denizens of the south and south-western backwoods of the country, and have been correctly classed under the aboriginal population."—V. N. NARASIMAIYENGAR.

OPPERT: Original inhabitants of India—Kurubas or Kurumbas.—“However separated from each other and scattered among the Dravidian clans with whom they have dwelt, and however distant from one another they still live, there is hardly a province in the whole of Bharatavarasha which cannot produce, if not some living remnants of this race, at least some remains of past times which prove their presence. Indeed the Kurumbas must be regarded as very old inhabitants of this land, who can contest with their Dravidian kinsmen the priority of occupation of the Indian soil.”

“The terms Kuruba and Kurumba are originally identical, though the one form is in different places employed for the other, and has thus occasionally assumed a special local meaning. Mr. H. B. Grigg appears to contradict himself when, while speaking of the Kurumbas, he says that ‘in the low country they are called Kurubas or Cúrúbáru, and are divided into numerous families, such as the Áné or elephant, náya or dog, Málé or hill Kurumbas.’⁶ Such a distinction between mountain-Kurumbas and plain-Kurubas cannot be established. The Rev. G. Richter will find it difficult to prove that the Kurubas of Mysore are only called so as shepherds, and that no connection exists between these Kurubas and the Kurumbas. Mr. Lewis Rice calls the wild tribes as well as the shepherds Kurubas, but seems to overlook the fact that both terms are identical, and refer only to the ethnological distinction.

“The stunted growth of animals and plants in cold, wet, and high elevations is a well-known natural law, to which the human species has also to submit. In consequence of their loneliness and comparative physical weakness, the small mountaineers, when they meet their taller but less clever neighbours of the plains, display often a spiteful distrust, use poisoned arrows, and frighten them by their mysterious proceedings into abject superstition. This is the reason why the Kurumbas of the Nilgiri hills are so shunned.”

⁶ Manual of the Nilgiri District, 1880.

KING : Aboriginal Tribes of the Nilgiri Hills—Kurumbas. —“This tribe is of another race from the shepherd Kurumbas, described by Sir Walter Elliot as having a distinct priesthood, and worshipping the god Bhya. The Nilgiri tribe have neither cattle nor sheep, and, in language, dress, and customs, have no affinity whatever with their namesakes.”

The above extracts amply suffice for the purpose of showing that the distinction between Kuruba and Kurumba, and their relationship towards each other, call for a ‘permanent settlement’ by the application of scientific methods; and the problem, which is no easy one, appears to depend essentially on anthropometric observations and a study of physical characters for its solution. This research, which must be carried out among the Kurumbas or Kurubas of the plains of Southern India, the Kurubas of the Mysore plateau, and the Kurumbas who inhabit the jungles, must of necessity be prolonged; and I am at present unable to undertake it in its entirety. As a basis for future operations, I may, however, place on record the results of my investigations, so far as the jungle Kurumbas of the eastern slopes of the Nilgiris and the more highly civilised Ūru Kurubas of the Mysore province are concerned.

The picture, which is drawn by King⁷ of the Nilgiri Kurumbas, is not a pleasant one. “Their chief food,” he says, “is wild roots and berries, or grains soaked in water, with occasional porcupines or polecats. Their dwellings are nothing more than a few branches piled up together like heaps of dead brushwood, in a plantation, often simply holes or clefts among the rocks. Their clothing is, with the males, a small dirty cloth round the loins; and, with the females, a rag thrown on any way that its condition and size render most available. The appearance of these rude people is wretched, and even disagreeable. Low in stature, they are also ill-made; the complexion is of an unhealthy hue, and their heads are thinly covered with mangy-looking hair. They have bleared eyes, a rather wide mouth, and often projecting teeth. Spare to leanness, there is also a total absence of any apparent muscle, and the arms and legs are as much like black sticks as human limbs. No such ceremony as marriage exists among these people, who live together like the brute creation.” A quarter of a century has elapsed since this description was written, and the *fin de siècle*

⁷ Aboriginal tribes of the Nilgiris, 1870.



KURUMBA MAN:

Kurumba, who works for regular wages on planters' estates, is more domesticated, better fed, better nourished, and better clothed. But by no stretch of the imagination, can the dark-skinned, broad-nosed Kurumba, whose portrait appears on plate xiii be regarded as an example of a high type of civilisation. Nor would the light-skinned Ūru Kuruba, with sharp-cut features, and aquiline nose, whose portrait is reproduced on plate xii, appreciate being linked in the bonds of common ancestry with the Kurumba.

The average measurements of the Nilgiri Kurumbas and the Ūru Kurumbas of Shimoga in the Mysore Province (some of whom are traders, or in the service of Government) are given in table VIII. I would, however, invite more special attention to the subjoined tabular statement, wherein the averages, and maxima and minima of the more important measurements, from a comparative point of view, are recorded with the object of bringing out the main points of difference between Kuruba and Kurumba.

	Kuruba.			Kurumba.		
	Maxima.	Minima.	Average.	Maxima.	Minima.	Average.
Height	CM. 176·4	CM. 155	CM. 163·9	CM. 163·6	CM. 149·6	CM. 157·5
Span of arms	184·4	155·2	171	173·4	156·6	167·5
Do. rel. to stature=100 ...	...	...	104·3	...	...	106·3
Middle finger to patella ...	16·2	9	12·3	12·6	6	9·8
Do. rel. to stature=100.	...	...	7·5	...	...	6·2
Hips ... ..	...	...	26·3	...	...	24·5
Foot, length ... ..	...	...	25·1	...	...	24·6
Cephalic length	19·6	17	18·3	18·7	16·9	17·9
Cephalic breadth	15	13·1	13·9	14·5	13	13·7
Cephalic index	82·1	71·6	75·8	83·3	71·8	77
Nasal height	5·3	4·2	4·7	4·4	3·6	4·2
Nasal breadth	3·2	3·1	3·4	4·2	3·4	3·8
Nasal index	85·9	62·3	73·2	111·1	79·1	88·8



KURUMBA GIRL.

Standing first in importance as distinguishing characters are stature and nose measurements. Coming under the heading 'below middle height' (163.9 cm.), with a maximum recorded height of 176.4 cm. (very tall), the Kuruba is clearly differentiated from the Kurumba of low stature (157.5 cm.), whose maximum recorded height does not even reach the Kuruba average. More important, however, than stature, is the relation of height to breadth of nose; and it is obvious that there is a very wide distinction between the Kurubas with an index (average 73.2) ranging between 85.9 and 62.3, and the Kurumbas, whose index (average 88.8) ranges between 111.1 and 79.1. And, to take extreme cases, a light-skinned, leptorrhine Kuruba, with long, narrow nose, 5.3×3.3 cm. (index 62.3) cannot reasonably be linked together with a dark-skinned platyrrhine Kurumba with short, broad nose, 3.6×4 cm. (index 111.1).

Relatively to stature, the span of the arms is greater in the semi-domesticated Kurumba than in the more civilised Kuruba. And, in consequence of the greater length of the upper extremity relative to stature, the hand reaches nearer to the knee in the former than in the latter. In the Kurumbas the breadth of the hips across the iliac spines and the length of the foot are approximately the same, whereas, in the Kuruba, the breadth of the hips is considerably (1.2 cm.) greater than the foot length. In length and breadth of head, as might be expected, the Kuruba is in advance of the Kurumba, and the maxima recorded in the former are considerably in excess of those recorded in the latter.



KURUMBA GIRL.

TABLE VIII.
COMPARISON OF MEASUREMENTS.
KURUBAS AND KURUMBAS.

	Kurubas.	Kurumbas.
Height	163·9	157·5
Height, sitting	84	80·5
Height, kneeling	120·5	115·4
Height to gladiolus	123·3	116·4
Span of arms	171	167·5
Span of arms rel. to stature=100	104·3	106·3
Chest	83·8	79·8
Middle finger to patella	12·3	9·8
Middle finger to patella rel. to stature=100	7·5	6·2
Shoulders	39·5	37·5
Cubit	45·7	45·2
Hand, length	18·3	17·8
Hand, breadth	8	7·9
Middle finger	11·5	10·7
Hips	26·3	24·5
Foot, length	25·1	24·6
Foot, breadth	8·6	8·2
Cephalic length	18·3	17·9
Cephalic breadth	13·9	13·7
Cephalic index	75·8	77
Bignoniac	10·1	9·8
Bisymphomatic	12·9	12·9
Maxillo-zygomatic index	77·7	76
Nasal height	4·7	4·2
Nasal breadth	3·4	3·8
Nasal index	73·2	88·8
Vertex to tragus	14·1	13·3
Vertex to chin	21·2	20·4

SUMMARY OF RESULTS.

When, as sometimes happens, I am, owing to fear or superstitious objection on the part of the members of a tribe to undergo the entire course of treatment at my hands, reduced to the necessity of selecting a few only out of the series of twenty-one measurements, which I am in the habit of recording, I select, as being most useful for the purposes of classification and correlation, the stature, length and breadth of head, and height and breadth of nose. With these data to work on, it is comparatively easy to fit any community approximately into its proper place in the South Indian anthropological puzzle.

Some of the measurements, *e.g.*, chest girth and breadth of shoulders (*vide* tables xiv and xv), though useful as a guide to physical development, possess no racial value. Others, though important for comparison between the inhabitants of Southern India and other parts of the world, have little or no value as factors in differentiating between the various castes, tribes, etc., of Southern India. The facial angle, for example, though of great importance in separating prognathous from so-called orthognathous races, is of little use as an aid to comparison and classification of the different communities of Southern India, in whom the average of the angle of Cuvier (with its vertex at the edge of the incisor teeth) ranges, in the people examined by me, between 67° and 71° , as shown in the subjoined statement.

Badagas	..	..	..	..	71
Kotas	..	..	..	..	70
• Kammālans	..	..	..	..	70
Brāhmans (Madras City)	..	..	..	..	69
Pallis	..	..	..	..	69
Vellālas	..	..	..	..	69
Tiyyans	..	..	..	..	69
Muppas	..	..	..	..	69
Pāl Kurumbas	..	..	..	..	69
Kongas	..	..	..	..	69
Todas	..	..	..	..	68
Pattar Brāhmans	..	..	..	..	68
Malaialis	..	..	..	..	68
Tamil Pariahs	..	..	..	..	68
Kanarese Pariahs	..	..	..	..	68
Irulas	..	..	..	..	68
Sheik Muhammadans	..	..	..	..	67
Paniyans	..	..	..	..	67

In tables ix to xiii I have brought together, for the purpose of comparison, statistical evidence relating to the average stature, head, and nose measurements of the different classes which I have so far investigated. The most troublesome heads to measure were those of my hairy Toda friends, whose dense locks constituted an effective obstacle to easy shifting of the callipers, while the desired maximum was being groped for in the dark; the easiest were those of men with heads clean shaved in observance of some religious or domestic rite.

An examination of the section of the Madras Census Report, 1891, devoted to 'caste, tribe, and race,' will show how hopeless, to a worker with only one collaborateur, must be the prospect of making even a semblance of an approach to a complete anthropological survey of the multifarious tribes and castes inhabiting the vast tract of country comprising Southern India, which is included in my beat. All I can hope to do, amid other duties of a manifold nature, is to examine the more important communities when at head-quarters in Madras, and to make periodical roving expeditions with a view to carrying on the research in selected tribe-hunting grounds. In this way the material summarised in tables ix to xv has been brought together during the last two years; and including, as it does, examples of dwellers in the plains, on the hill tops, in the jungles at the bases of the hills, and on the Mysore plateau, it may, I think, be taken as fairly representative, and used for the purpose of generalisation. The nature and extent of the material collected up to the present time, and utilised in the following summaries of results, is shown by the subjoined tabular statement:—

Class.	Habitat.	Number measured.	
		Male.	Female.
Todas	Plateau of the Nilgiri hills.	25	25
Kotas	Plateau of the Nilgiri hills.	25	20
Badagas	Plateau of the Nilgiri hills.	40	..

Class.	Habitat.	Number measured.	
		Male.	Female.
Irulas	Lower slopes of the Nil-giri hills.	25	..
Kurumbas	Lower slopes of the Nil-giri hills.	15	..
Sholigas	Base of Mysore hills ..	3	..
Malaialis	Shevaroy hills	36	..
Paniyans	Wynād, Malabar	25	12
Muppas	Do.	24	..
Tiyyans	Calicut, South Malabar.	25	25
Cherumans	Do. do.	25	25
Pattar Brāhmans ..	Do. do.	25	..
Kongas	Coimbatore District ..	20	..
Tamil Brāhmans (poorer classes).	Madras City	40	..
Tamil Pariahs	Do.	40	..
Kammālans	Do.	40	..
Pallis	Do.	40	..
Vellalas	Do.	40	..
Muhammadans	Do.	75	..
Kanarese Pariahs ..	Mysore Province	33	..
Kurubas	Do.	25	..
Koramas	Do.	25	..
Lambādis (nomad).	Do.	40	40
Total ..		711	147

1. STATURE.

The tallest men whom I have come across are a Toda (185 cm.) and Badaga (183·2 cm.); the shortest a Muppa (144·6 cm.), Cheruman (145·8 cm.), Kammālan (146·4 cm.) and Tamil Pariah (149·4 cm.).

The following table shows the average heights of the classes investigated :—

Very tall 170 cm. and upwards.

..

Above middle height 170 to 165 cm.

Todas 169·6

Below middle height 165 to 160 cm.

Sheik Muhammadans ..	164.5
Lambadis	164.3
Pattar Brāhmans ..	164.3
Badagas	164.1
Kurubas	163.9
Malaiālis	163.9
Tiyyans	163.7
Kotas	162.9
Brāhmans (Madras city)	162.5
Pallis	162.5
Vellālas	162.4
Tamil Pariahs	161.9
Kanarese Pariahs ..	161.8

Low stature below 160 cm.

Irulas	159.8
Kammālans	159.7
Koramas	159.3
Kongas	159
Muppas	157.7
Cherumans	157.5
Urāli Kurumbas ..	157.5
Pāl Kurumbas	157.5
Paniyans	157.4

In Keane's 'Ethnology,' Hindus and Dravidians are (after Topinard) aggregated together, in an anthropological conglomerate, as possessing an average height of 164.5 cm., which I take to be rather exaggerated. In the foregoing table a very large majority of Hindu-Dravidians are undoubtedly included, but the aberrant Todas alone reach this average. The Todas, according to my estimate, possess approximately the same stature as the Irish (169.7 cm.), and just miss the dignity of being included with the English among the very tall races of the world. The hairy Ainu of Japan, it may be noted, is placed by Keane, in company with the Toda, in a siding on the family tree of Homo Caucasica. The average height of the stalwart, black-haired Toda (5 feet 7½ inches) is, according to Mr. Savage Landor's measurement^a of five typical examples, conspicuously in excess of that of the short, sometimes red-haired Ainu (5 feet 2½ inches).

Between the Todas and the next tallest class, the Sheik Muhammadans, there is a well-defined gap of 5.1 cm. But

^a Alone with the hairy Ainu.

from Sheiks to Pariahs there is a gradual decrease in height, with a break of 2 cm. between the lowest representatives of middle stature and the tallest of low stature. Among the classes of middle height, the uniformity of the height of Brāhmans, Pallis, and Vellālas, and of Tamil and Kanarese Pariahs is noteworthy. So also is the presence of the Kam-mālans among the classes of low stature, amid the humble environment of Irulas, Koramas, and Kongas.

The length of the upper extremities, in the classes under consideration, relative to stature, as estimated by the determination of the distance from the tip of the middle finger to the top of the knee-cap (patella), when the subject is at attention with the extensor muscles of the thigh relaxed, is shown by the following table:—

				Average.	Average relative to stature=100.
Koramas	..	..	..	13·3	8·3
Kurubas	..	..	..	12·3	7·5
Badagas	..	..	..	12·2	7·4
Lambādis	..	..	..	11·7	7·1
Pattar Brāhmans	..	..	..	11·3	6·9
Irulas	..	..	..	10·7	6·7
Kotas	..	..	..	10·7	6·6
Malaiālis	..	..	..	10·8	6·6
Sheik Muhammadans	..	..	..	10·7	6·5
Tiyyans	..	..	..	10·6	6·5
Vellālas	..	..	..	10·4	6·4
Kongas	..	..	..	9·9	6·2
Tamil Brāhmans	..	..	..	10·1	6·2
Kanarese Pariahs	..	..	..	9·8	6·1
Tamil Pariahs	..	..	..	9·4	5·8
Pallis	..	..	..	9·5	5·8
Kammālans	..	..	..	8·4	5·3
Todas	..	..	..	9	5·3
Muppas	..	..	..	8·2	5·3
Cherumans	..	..	..	7·8	4·6
Paniyans	..	..	..	7·3	4·4

The more the distance diminishes, the greater is the length of the upper extremities. The arm then is shortest in the Kanarese Koramas, Kurubas, and Badagas, and longest in the short, broad-nosed Paniyans, who approach the Negro average (4·37).

As examples of inordinately long upper extremities (not included in the averages), which brought to mind the

Hindu ideal of the long-armed Rāma, "whose hands reach to the knees," the two following cases are worthy of being placed on record. The one was a venerable, white-haired Kuruba; the other a Tamil Pariah, who is referred to later on in connection with his nose.

	Kuruba. cm.	Pariah. cm.
Height	177·8	160·8
Span of arms	199·2	183·8
Difference between span and height.	21	23
Cubit	53	
Middle finger to patella	5·7	6·4
Middle finger to patella relative to stature=100.	3·2	4

2. HEAD MEASUREMENTS.

For the benefit of my amateur readers, to whom the meaning of the term 'cephalic index' may not be clear, it may be stated that this index, which expresses the ratio of the length to the breadth of the head, is estimated by multiplying the maximum breadth by 100, and dividing the product by the maximum length.

Examples.

$$\begin{array}{l}
 \text{Toda } \left\{ \begin{array}{ll} \text{cephalic length} & 20 \text{ cm.} \\ \text{cephalic breadth} & 14 \text{ cm.} \end{array} \right. \\
 \frac{14 \times 100}{20} = 70 = \text{cephalic index.} \\
 \\
 \text{Brāhman } \left\{ \begin{array}{ll} \text{cephalic length} & 18·2 \text{ cm.} \\ \text{cephalic breadth} & 15 \text{ cm.} \end{array} \right. \\
 \frac{15 \times 100}{18·2} = 82·4 = \text{cephalic index.}
 \end{array}$$

The terms used in the headings of the columns in table ix, in which the nomenclature of Broca is followed, have the following significance:—

Dolichocephalic	Index 75 and under.
Sub-dolichocephalic	„ 75·01 to 77·77.
Mesaticephalic	„ 77·78 to 80.
Sub-brachycephalic	„ 80·01 to 83·83.
Brachycephalic	„ 83·84 and upwards.

Turning now to table ix. Conspicuous by its almost complete absence is the brachycephalic head, which, were I dealing with the Burmese instead of the inhabitants of Southern India, would be very largely represented, with a corresponding decrease in the numbers of dolicho- and sub-dolichocephalic heads. The columns in table ix would, in fact, have been inverted. The solitary heads, which prevent the brachycephalic column from being a perfect and absolute blank, were the property of a Kanarese Koraman, and a Tamil Brāhman guru (religious instructor) who shares with a Toda the honour of possessing the maximum head-breadth (15.2 cm.) recorded in my notes. But the length of the Toda's head was 19.6 cm. against the Brāhman's 18.1 cm. The only other brachycephalic heads, which I have met with during the examination of nine hundred subjects, belonged to two broad-headed Lambadi lassies, whose cephalic indices were 83.9 and 85.5 respectively.

It is worthy of notice that the tribes, which stand first and second in the list, so far as head length is concerned, are the Todas and Kotas—the two oldest existing tribes of the Nilgiri plateau—in whom alone the average head length exceeds 19 cm. The maximum head lengths recorded, in the classes under review, reached, or slightly exceeded 20 cm. only in the Todas, Kotas, and Badagas of the Nilgiri plateau, and in the Tiyyans and Pattar Brāhmans of Malabar. In the other classes investigated, the maximum head-length ranged between 19.9 cm. in the Brāhmans of Madras city (belonging to the poorer classes) and 19.1 in the Irulas and Kongas, whose mental development is of a very low order. The Irulas, it may be mentioned, *en passant*, are an uncultivated jungle tribe, who have only in recent years been brought by the European planting community under the influence of civilisation; and the Kongas are a degraded sub-division of the Vellālas, who occupy a low position in the Vellāla community. “No other Vellāla,” it is said,⁹ “would take his meals with them because they employ Uppiliyans and other low caste people as cooks for their marriages, &c.”

The average head-length ranges between 19.4 cm. in the Todas and 17.8 cm. in the Kongas and Koramas. The latter are inhabitants of the Mysore plateau, very dark-skinned and short of stature, “with crime and vice writ

⁹ Madras Census Report, 1891.

large on their physiognomy," who combine professional burgling, and animal and bird-snaring with ingenious contrivances, with the more orthodox occupation of basket making. Only under marked protest, and with the assistance of the police, did the Koramas permit me to use them for the purposes of anthropometry, and my recollection of my sojourn among them is far from a happy one.

The coincidence of the head length in four out of the five Hindu classes examined in Madras City—Brāhmans, Vellālas, Pallis, and Pariahs—appears to me suggestive. In the fifth class, the Kammālans, the head-length was slightly less.

As in length, so in breadth of head, the Todas and Kotas of the Nilgiris stand out conspicuously in the first rank, but, in this case, bracketed equal with the Brāhmans of Madras city (14·2 cm.), who are close followed by the Pattar Brāhmans of Malabar, descended from Tamil Brāhmans who migrated to Malabar from the east coast, and have, I imagine, become modified as regards physical characters by alliances contracted in the home of their adoption (*vide* table xvi). In the remaining classes, the average head-breadth ranges between 13·8 cm. and 13·5 cm. and calls for no special remark, except that breadth of head exceeding 15 cm. occurred only among the Todas (15·2), Kotas (15·1), Brāhmans of Madras City (15·2), and Pattar Brāhmans (15·1).

Arranging the classes under review in sequence, according to the cephalic index, the results are as follows:—

Dolichocephalic.

Badagas	..	..	..	71·7
Muppas	..	..	..	72·3
Tiyyans	..	..	..	72·7
Pallis	..	..	..	73
Todas	..	..	..	73·1
Tamil Pariahs	..	..	..	73·6
Cherumans	..	..	..	73·9
Paniyans	..	..	..	74
Kotas	..	..	..	74·1
Vellālas	..	..	..	74·1
Malaiālis	..	..	..	74·4
Pattar Brāhmans	..	..	..	74·5
Kammālans	..	..	..	75

Sub-dolichocephalic.

Lambadis	75.4
Kurubas	75.8
Sheik Muhammadans	76.2
Brāhmans (Madras city)	76.5
Kanarese Pariahs	76.8
Kongas	77
Koramas	77.5

Only, as shown in table ix, in the Todas, Badagas, and Muppas, was the head confined to the dolichocephalic and sub-dolichocephalic types; the remaining classes possessing a greater or less proportion of mesaticephalic (intermediate) and sub-brachycephalic heads. In the majority of the classes examined, the head was dolichocephalic in more than half the cases; and it is clear from the foregoing statistics that the dolichocephalic head is the prevailing type, so far as Southern India is concerned. The classes, in which the head was dolichocephalic in less than half the cases, were the Brāhmans and Sheik Muhammadans of Madras City, Irulas, Kongas, Kurubas, Kanarese Pariahs, and Koramas. A glance at table ix shows at once the high proportion of sub-dolichocephalic heads in the Brāhmans and Kurubas, and mesaticephalic heads in the Koramas. I have already (Bulletin No. 4) dealt with the great breadth of the Brāhman head in comparison with that of the other classes examined in Madras. The Lambadis, Kurubas and Sheik Muhammadans come intermediate between the Brāhmans and a group composed of Kanarese Pariahs, Irulas, Koramas, and Kongas, all people of low origin, whose high cephalic index is explained, not as in the case of the Brāhmans, by the great breadth of the head in proportion to its length, but, as shown in the following summary, by the shortness of its length in relation to its breadth:—

			Length.	Breadth.
			cm.	cm.
Brāhmans .. ..	..	..	18.6	14.2
Lambadis .. ..	..	..	18.4	13.9
Kurubas .. ..	..	..	18.3	13.9
Sheik Muhammadans .. ..	..	..	18.2	13.8
Kanarese Pariahs .. ..	..	..	18	13.8
Irulas .. ..	..	..	18	13.7
Koramas .. ..	..	..	17.8	13.9
Kongas .. ..	..	..	17.8	13.7



TAMIL, PARIAN.

3. THE NOSE.

Readers of Marryat's novels will doubtless remember that Japhet, in search of his father, borrowed from Mr. Cophagus a book containing a dissertation upon the human frame, sympathies, antipathies, and those features and peculiarities most likely to descend from one generation to another, wherein it was asserted that the nose was the facial feature most likely to be transmitted. The nose I regard as an all-important element, so far as the people in whom I am interested are concerned, as a basis of classification, and as an aid to the elucidation of the ancestry of caste and tribe. Not, however, the shape of the nose, but the relation of its height to its breadth (nasal index), is that to which a prominent place must be assigned in a study of the comparative anthropography of the people of Southern India. "Le plus important des caractères cephalométriques," says Topinard,¹⁰ "est l'indice nasal. C'est le seul caractère se mesurant qui partage tous les types de l'humanité en trois groupes fondamentaux répondant à la division classique de Cuvier en races blanches (leptorrhiniennes, nez long, et étroit), races jaunes (mésorrhiniennes, nez large et bas). Cet indice varie, dans les moyennes, de 63 dans une série de 100 Français dolichocéphales et blondes mesurés par le docteur Collignon à 109 dans une série de Tasmaniens mesurés pour nous sur leurs moulages; et dans les cas particuliers, de 50 et moins chez des Européens à 153 chez un Australien."

A photograph (pl. xv), which I regard with some affection, has been challenged on the ground that it must have been deformed. It may, therefore, be stated that noses disfigured by small-pox and other diseases, or pugilistic encounters, are invariably rejected.

Once more, for the amateur, it may be explained that the nasal index expresses the relation of the height of the nose, measured from the under surface (not the tip), to the breadth measured across the widest part of the nostrils when at rest. This index is, like the cephalic index, estimated by multiplying the breadth by 100, and dividing the product by the height.

¹⁰ *L'Homme dans la Nature.*

Examples.—

Brāhman { nasal height 5.5 cm.
nasal breadth 3.4 cm.

$$\frac{3.4 \times 100}{5.5} = 61.8 = \text{nasal index.}$$

Kurumba { nasal height 4 cm.
nasal breadth 4 cm.

$$\frac{4 \times 100}{4} = 100 = \text{nasal index.}$$

Paniyan { nasal height 3.5 cm.
nasal breadth 3.8 cm.

$$\frac{3.8 \times 100}{3.5} = 108.6 = \text{nasal index.}$$

These examples, taken from my case-book, show (1) that the greater the height in proportion to the breadth, the lower is the index; (2) that, when the height is exactly equal to the breadth, the index is 100; (3) that, when the breadth is greater than the height, the index exceeds 100.

Turning now to tables xi-xiii, it will be seen that the average nasal index of the people investigated ranges from 69.1 in the tall, light-skinned, and long narrow-nosed Lambādis (who speak an Aryan language), to 95.1 in the short, dark-skinned, and short, broad-nosed Paniyans; and that the indices recorded range between a minimum of 59.2 in a Lambādi and a maximum of 108.6 in a Paniyan. The maximum index, however, which I have met with, was in the case of a Paniyan woman, who possessed a nose 3.1 cm. in height and 3.7 cm. in breadth, and a nasal index of 119.4.

In table xii the noses are arranged according to their height. But the actual sequence of nasal indices is recorded in table xi, which shows, in each case, the maxima and minima observed, the average, and the range. In the same table, the noses are further classified according as the average index is from 60-70, 70-80, 80-90, or 90-100; and the main interest, to my mind, lies in the connection which exists between the noses in the earlier and later series. Assistance in tracing this connection will, I think, be found in table xiii, in which statistics relating to twenty to twenty-five members of the various classes examined are given, showing the frequency of noses with indices of 50-60 60-70, 70-80, 80-90, 90-100, and 100-110.

Only in one case—the Lambādis—do noses occur with an index below 60. The most popular columns, so far as number of entries is concerned, are those containing noses ranging between 70 and 80 and between 80 and 90, which contain respectively 236 and 146 out of 515 noses examined. Occupying a very prominent position in the column of noses between 80 and 90 are the Tamil Pariahs, Irulas, and Muppas, all of whom get into double figures. In the column containing noses with indices from 90 to 100, the Paniyans and Irulas hold a high place, and the same two classes monopolise, in the proportion of 10 : 1, the final column, which contains those wondrous noses, of which the breadth exceeds the height. In this column the Kurumbas and Sholigas would figure largely, but the material at my disposal is too scanty for record in the table.

On a coffee estate in the Ouchterlony valley, I was introduced to a Sholiga dwarf, the son and brother of dwarfs with hereditary polydactyly, who was very angry at my measuring operations, and kept on muttering that such a thing would not have been permitted when Mr. Ouchterlony was alive. The big but normal nose of this little man, measuring 4×4 cm., with nasal index of 102·5, presented an irresistibly comical appearance, but he failed to appreciate my lively interest in it.

In the subjoined tabular statement the various castes and tribes are classified according to the range of their nasal indices, *i.e.*, the difference between the maximum and minimum recorded in each case.

	10—20.		
Badagas	..	..	.. 15·7
Todas ..	..	..	.. 17·9
Kotas ..	..	..	.. 18·9
	20—30.		
Tiyyans	..	..	.. 21·8
Muppas	..	..	.. 21·8
Kurubas	..	..	.. 23·6
Lambādis	..	..	.. 24·5
Paniyans	..	..	.. 24·9
Sheik Muhammadans		..	.. 25·1
Kanarese Pariahs	..	..	.. 26·6
Kammālans	..	..	.. 27·6
Irulas ..	..	..	.. 27·7
Koramas	..	..	.. 28·2
Kongas	..	..	.. 28·7
Oherumans	..	..	.. 29·3

30—40.

Pattar Brāhmans	..	..	30·1
Vellālas	..	..	30·7
Malaiālis	..	..	34·2
Pallis	..	..	34·3
Brāhmans (Madras City)	..	..	35·1
Tamil Pariahs	..	..	39

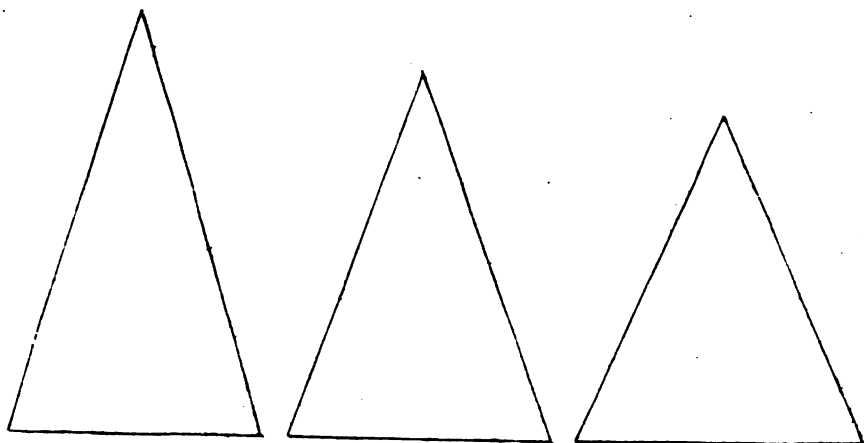
It is noteworthy that the tribes, whose nasal indices have the least variation, are the three which inhabit the plateau of the Nilgiri hills, where they lived an isolated existence until the settlement of the English on these hills in recent times; and that the owners of the greatest variation (exceeding 30) constitute a group of Tamil classes made up of Brāhmans, Vellālas, Pallis, and Pariahs of Madras city, the Malaiālis of the Shevaroy hills, (descended, it is said, from Vellālas of Conjeveram), and the Pattar Brāhmans descended from east-coast Tamil Brāhmans.

Very suggestive are the following measurements of a very dark-skinned Tamil Pariah cooly, whom I met by chance when changing camp in the course of a recent wandering, and detained, much against his will, until the measuring instruments came up.

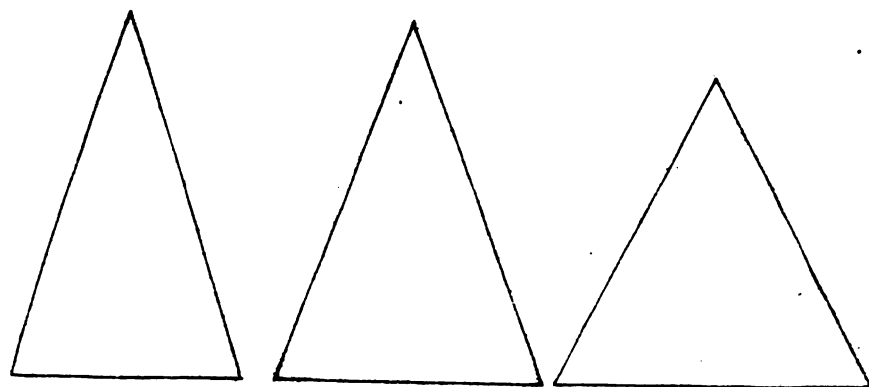
Height	..	..	160·8	cm.
Nasal height	..	..	4	„
Nasal breadth	..	..	4·2	„
Nasal index	..	..	105	„

Looking at the portrait of this man (pl. xv), there is an irresistible impulse to connect him, in the ties of ethnical relationship, with the jungle tribes; and I regard this man, and other Pariahs of a kindred nature, whom I have come across, as important witnesses in support of my belief that the constantly recurring high nasal index among existing Aryo-Dravidians and Dravidians must be traced to the influence of a platyrrhine (broad-nosed) ancestor.

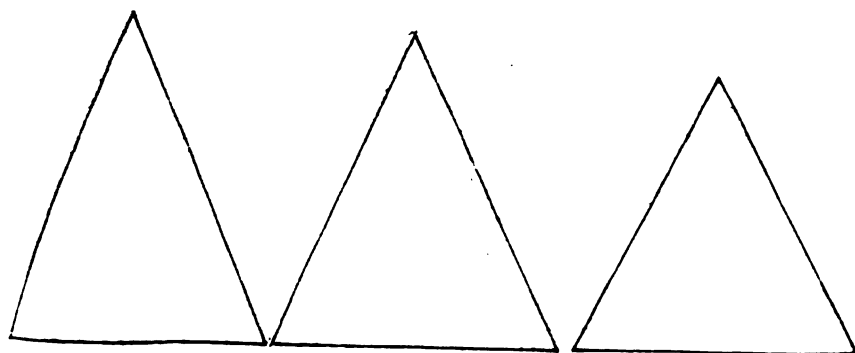
The Sheik, Pathān, and Saiyad Muhammadans of Madras claim to be descendants of immigrants from the north, and to be distinct from the converted Dravidians, the Máppilas and Labbais. Their claim is no doubt justified; but well-marked signs of admixture of Dravidian blood are conspicuous in some members of their communities, whose dark skin and high nasal index betray their non-Aryan ancestry.



Brahman



Pariah



Min

**Paniyan
Average**

Max

In plate xvi are figured a series of triangles representing (natural size) the maxima, minima, and average nasal indices of Brāhmins of Madras city (belonging to the poorer classes) Tamil Pariahs, and Paniyans. There is obviously far less connection between the Brāhman minimum and the Paniyan maximum than between the Brāhman and Pariah maxima and the Paniyan average; and the frequent occurrence of high nasal indices, resulting from short, broad noses, not only in Brāhmins and Pariahs, but also in Cherumans, Muppas, Kongas, and others, has to be accounted for.

Sir. A. Lyall somewhere refers to the gradual Brāhmanising of the aboriginal Non-Aryan, or casteless tribes. "They pass," he says, "into Brāhmanists by a natural upward transition, which leads them to adopt the religion of the castes immediately above them in the social scale of the composite population, among which they settle down; and we may reasonably guess that this process has been working for centuries." In the Madras Census report, 1891, the Census Commissioner, Mr. H. A. Stuart, states that "it has often been asserted, and is now the general belief, that the Brāhmins of the south are not pure Aryans, but are a mixed Aryan and Dravidian race. In the earliest times the caste division was much less rigid than now, and a person of another caste could become a Brāhman by attaining the Brāhmanical standard of knowledge, and assuming Brāhmanical functions. And when we see the Nambudiri Brāhmins, even at the present day, contracting alliances, informal though they be, with the women of the country, it is not difficult to believe that, on their first arrival, such unions were even more common, and that the children born of them would be recognised as Brāhmins, though perhaps regarded as an inferior class. However, those Brāhmins, in whose veins mixed blood is supposed to run, are even to this day regarded as lower in the social scale, and are not allowed to mix freely with the pure Brāhman community."

Between a Brāhman of high culture, with fair complexion, and long, narrow nose on the one hand, and a less highly-civilised Brāhman with dark skin and short, broad nose on the other, there is a vast difference, which can only be reasonably explained on the assumption of admixture of races. And it is no insult to the higher members of the Brāhman community to trace, in their more lowly brethren, the result of crossing with a dark-skinned,

broad-nosed race of short stature. Whether the jungle tribes—Irulas, Kurumbas, Sholigas, and others—are the existing microscopic remnant of a pre-Dravidian people, or of Dravidians driven by a conquering race to the seclusion of the jungles, it is to the lasting influence of some such broad-nosed ancestor that the high nasal index and short stature of many of the inhabitants of Southern India must, it seems to me, be attributed. Viewed in the light of this remark, the connection between the following mixed collection of individuals, all of very dark colour, short of stature, and with nasal index exceeding 90, calls for no explanation : —

—	Stature.	Nasal height.	Nasal breadth.	Nasal index.
	CM.	CM.	CM.	
Kammalan	154.4	4.4	4	90.9
Korama	159.8	4.6	4.2	91.3
Saiyad Muhammadan..	160	4.4	4	90.9
Vellāla	154.8	4.7	4.3	91.6
Muppa	151.2	3.7	3.4	91.9
Malaiāli	158.8	4	3.7	92.6
Konga	157	4.1	3.8	92.7
Pattar Brāhman ..	157.6	4.2	3.9	92.9
Kurumba	159.6	4.4	4.1	93.2
Smārta Brāhman ..	159	4.1	3.9	95.1
Palli	157.8	4.1	3.9	95.1
Irula	155.4	4.1	3.9	95.1
Paniyan	157.8	4.1	3.9	95.1
Irula	158.6	4.3	4.3	100
Tamil Pariah	160	4	4.2	105
Paniyan	158.8	3.8	4	105.3

Though the present chapter is entitled 'Summary of Results,' it aims at no finality, but must be regarded in the light of a preliminary summary based on the evidence collected up to date. Absence from India will create a breach of continuity in my work in connection with the anthropological survey of Southern India, which I hope to resume, with renewed vigour, in 1898.

"The more remote and unknown the race or tribe," it has been said, "the more valuable is the evidence afforded by the study of its institutions, from the probability of

their being less mixed with those of European origin." Tribes which, only a few years ago, were living in a wild state, clad in a cool and simple garb of forest leaves, and buried away in the depths of the jungle, have now come under the domesticating, and sometimes detrimental, influence of contact with Europeans, with a resulting modification of their conditions of life, morality, and even language. The Paniyans of the Wynâd, and the Irulas who inhabit the slopes of the Nilgiris, now work regularly for daily wage on planters' estates; and I was lately shocked by seeing a Toda boy studying for the third standard in Tamil, instead of tending the buffaloes of his mand. The Todas, whose natural drink is milk, now delight in bottled beer, and mixture of port wine and gin, which they purchase in the Ootacamund bazar. On one occasion, I am told, a planter met two stalwart Todas returning from a funeral ceremony, and carrying across their shoulders a bundle, which, on examination, resolved itself into a Toda woman in a very advanced stage of intoxication.

"The rapid extermination of savages at the present time, and the rapidity with which they are being reduced to the standard of European manners, renders it of urgent importance to correct these sources of error as soon as possible." Ample proof can be adduced in support of the fact that European influence, import trade with other countries, and the struggle for existence, are bringing about a rapid change (said from an ethnographic standpoint) among the native inhabitants of Southern India, both civilised and uncivilised. The employment of tiles and kerosine tins in lieu of primitive thatch; the import of cotton piece goods, which represents roughly 40 per cent. of the total import trade, and of umbrellas to the value of over 40,00,000 rupees annually; cooly trade and migration by sea to Assam, Burma and Ceylon; the decline of the national turban in favour of the less becoming porkpie cap or knitted night cap of gaudy hue; the replacement of peasant jewelry of indigenous manufacture by the importation of beads and imitation jewelry made in Europe, and accurately copied, in many instances, from specimens sent to exhibitions, and purchased by the agents of the manufacturers; the abandonment of the use of indigenous vegetable dyes in favour of the cheaper and more rapidly operating anilin and alizarin dyes; the use of lucifer matches by 'aboriginal' tribes, who formerly made fire by friction; the supply of new

forms of food, and of beer and spirits, in the bazaars; the influence of the Government in suppressing thuggi, suttī, the human (meriah) sacrifices of the Khonds, and Toda infanticide; the administration of justice; the spread of education; religious teaching:—these and many other factors are the causes, or signs of, a radical change in the ethnographic conditions of the country.

A Toda lassie curling her ringlets with the assistance of a cheap looking-glass; a Toda man smeared with Hindu sect marks, doing pūja, and praying for male offspring at a Hindu shrine; a Bengali babu with close-cropped hair and bare head, clad in patent leather boots, white socks, dhuti, and conspicuous unstarched shirt of English device; a Hindu or Parsi cricket eleven engaged against a European team; the increasing struggle for small-paid appointments under Government:—these are a few examples of changes resulting from the refinement of modern civilization.

It has recently been said that “there will be plenty of money and people available for anthropological research, when there are no more aborigines”; and it behoves our museums to waste no time in completing their anthropological collections.

TABLE IX.

CLASSIFICATION OF HEADS.

	Dolichocephalic.	Sub-dolichocephalic.	Mesaticephalic.	Sub-brachycephalic.	Brachycephalic.
Todas	22	3	...	...	...
Badagas	21	4	...	...	...
Pallis	20	2	3	...	...
Tiyyans	20	2	2	1	...
Muppas	19	5	...	...	...
Vellâlas	19	5	1	...	...
Tamil Pariahs	18	6	1	...	...
Kotas	17	6	2	...	...
Cherumans	17	5	2	1	...
Malaiâlis	17	3	4	1	...
Paniyans	15	8	1	1	...
Kammâlans	14	6	3	2	...
Pettar Brâhmans	14	6	3	2	...
Lambâdis	13	7	2	3	...
Irnâlas	11	8	5	1	...
Sheik Muhammadans	10	7	6	2	...
Kanarese Pariahs	8	7	5	5	...
Tamil Brâhmîns	7	12	3	2	1
Kurubas	7	13	4	2	...
Kongas	6	8	9	2	...
Koramas	6	3	13	1	2

TABLE X.

AVERAGES.

CEPHALIC LENGTH, BREADTH, AND INDEX.

	Length.	Breadth.	Index.
	cm.	cm.	—
Todas	19·4	14·2	73·3
Kotas	19·2	14·2	74·1
Badagas	18·9	13·6	71·7
Tiyyans	18·9	13·7	72·7
Pattar Brāhmans	18·8	14	74·5
Tamil Brāhmans	18·6	14·2	76·5
Tamil Pariahs	18·6	13·7	73·6
Vellālas	18·6	13·8	74·1
Pallis	18·6	13·6	73
Muppes	18·5	13·4	72·3
Lambādis	18·4	13·9	75·4
Kammālans	18·4	13·7	75
Paniyans	18·4	13·6	74
Kurubas	18·3	13·9	75·8
Malaialis	18·3	13·7	74·4
Cherumans	18·3	13·5	73·9
Sheik Muhammadans	18·2	13·8	76·2
Kanarese Pariahs	18	13·8	76·8
Irulas	18	13·7	75·8
Kongas... ..	17·8	13·7	77
Koramas	17·8	13·9	77·5

TABLE XI.
NASAL INDEX.

	Max.	Min.	Average.	Range.
60-70.				
Lambadis	83·7	50·2	69·1	24·5
Sheik Muhammadans	85·1	60	70	25·1
70-80.				
Vellalas	91·5	60·8	73·1	30·7
Kurubas	85·9	62·3	73·2	23·6
Todas	89·1	61·2	74·9	17·9
Tiyyans	83·3	61·5	75	21·8
Kotas	92·9	64	75·5	18·9
Badagas	88·4	62·7	75·6	15·7
Koramas	90·9	62·7	75·7	28·2
Kanarese Pariahs	88·1	61·5	75·9	26·6
Pattar Brāhmans	95·3	64·7	76·5	30·1
Brāhmans (Madras city)	95·1	60	76·7	35·1
Kammalans	90·9	63·3	77·3	27·6
Malaiālis	100	63·8	77·8	34·2
Pallis	95·1	60·8	77·9	34·3
Cherumans	88·9	69·6	78·1	29·3
Kongas	92·7	64	79·9	28·7
80-90.				
Tamil Pariahs	10·5	66	80	39
Muppas	92·3	70·5	81·5	21·8
Irulas	100	72·3	84·9	27·7
Pal Kurumbas ... ..	...	...	87	...
90-100.				
Urāli Kurumbas ... ..	...	...	93·4	...
Sholigas ... ..	...	...	94·4	...
Paniyans	108·6	83·7	95·1	24·9

TABLE XII.

AVERAGES OF NASAL HEIGHT, BREADTH,
AND INDEX.

	Height.	Breadth.	Index.
Lambadis	4·9	3·4	69·1
Sheik Muhammadans	4·9	3·4	70
Vellalas	4·7	3·4	73·1
Kurubas	4·7	3·4	73·2
Tiyyans	4·7	3·5	75
Todas	4·7	3·6	74·9
Pattar, Brāhmans	4·7	3·6	76·5
Brāhmans (Madras city)	4·7	3·6	76·7
Kanarese, Pariahs	4·7	3·6	75·9
Badagas	4·6	3·4	75·6
Koramas	4·6	3·4	75·7
Malaiālis	4·6	3·5	77·8
Kammālans	4·6	3·6	77·3
Pallis	4·6	3·6	77·9
Kotas	4·5	3·5	77·2
Kongas	4·5	3·5	79·9
Tamil Pariahs	4·5	3·6	80
Cherumans	4·4	3·4	78·1
Irulas	4·4	3·7	84·9
Pal Kurumbas	4·3	3·7	87
Sholigas	4·2	3·9	94·4
Muppas	4·1	3·3	81·5
Urāli Kurumbas	4·1	3·8	98·4
Paniyans	4	3·8	95·1

TABLE XIII.

COMPARISON OF NASAL INDICES OF 20-25 MEMBERS
OF VARIOUS CLASSES.

	50-60	60-70	70-80	80-90	90-100	100-110
Lambadis	2	13	6	4	...	...
Sheik Muhammadans	13	11	1	...	...
Vellalas	9	13	3	...	...
Kurubas	8	14	3	...	...
Koramas	6	12	4	1	...
Kanarese Pariahs	6	10	9	...	...
Tiyyans	5	13	7	...	...
Todas	4	13	8	...	...
Kotas	4	11	8	1	...
Brahmans (Madras city)	4	12	8	1	...
Pattar Brahmans	4	15	4	2	...
Badagas	3	14	8	...	...
Malaialis	3	12	9	1	...
Kammalans	2	16	6	1	...
Kongas	2	7	8	3	...
Pallis	1	14	7	3	...
Tamil Pariahs	1	9	14	1	...
Cherumans	1	16	8	...	...
Muppes	11	11	2	...
Irulas	7	11	6	1
Paniyans	5	9	10

TABLE XIV.

CHEST GIRTH.

	Average.	Average relative to stature = 100.
Paniyans	cm. 81.5	51.8
Kurubas	83.8	51.1
Kotas	83	51
Pal Kurumbas	79.2	50.3
Lambâdis	82.5	50.2
Kanarese Pariahs	81.3	50.2
Tiyyans	82	50.1
Brahmans (Madras city)	81	49.8
Koramas	79.4	49.8
Kongas	79.2	49.8
Irulas	79.4	49.7
Muppas	77.4	49.1
Cherumans	78.4	49.1
Vellâlas	79.8	49.1
Badagas	80.4	49
Todas	83	48.9
Tamil Pariahs	79.3	48.9
Kammâlans	78	48.8
Malaiâlis	80	48.8
Pallis	79.2	48.7

The measurements were taken round the nipples, the arms being above the head, and hands joined.

The English average = 93.9, *i.e.*, 54 relative to stature = 100 (Topinard).

TABLE XV.
BREADTH OF SHOULDERS.

	Average.	Average relative to stature = 100.
Tiyyans	CM 40·3	24·6
Kammalans	39·2	24·5
Vellalas	39·7	24·4
Tamil Pariahs	39·4	24·3
Kongas	38·7	24·3
Brahmans (Madras city)	39·3	24·2
Pallis	39·4	24·2
Kurubas	39·5	24·1
Irulas	38·5	24·1
Badagas	39·4	24
Kanarese Pariahs	38·8	24
Lambadis	39·5	24
Pal Kurumbas	37·8	24
Malaiālis	38·8	23·7
Koramas	37·7	23·7
Cherumans	37	23·5
Todas	39·3	23·2
Kotas	37·7	23·1
Paniyans	35·9	22·8
Muppas	35·3	22·4

TABLE XVI.

SUMMARY OF MEASUREMENTS OF BRÄHMANS OF MADRAS
CITY AND PATTAR BRÄHMANS OF MALABAR.

	Madras.	Pattar.
Weight	115 lb.	112 lb.
Height	162.5 cm.	164.3 cm.
Height, sitting	85.4	85.6
Height, kneeling	119.2	121.3
Height to gladiolus	122.1	122.7
Span of arms	173.3	173
Chest	81	83.9
Middle finger to patella	10.1	11.3
Shoulders	39.3	41
Cubit	46	46.2
Hand, length	18.3	18.6
Hand, breadth	8	8.2
Middle finger	11.6	11.8
Hips	26	27.1
Foot, length	25.9	25.8
Foot, breadth	8.7	8.9
Cephalic length	18.6	18.8
Cephalic breadth	14.2	14
Cephalic index	76.5	74.5
Bigoniac	10	10.1
Biszygomatic	12.9	12.9
Maxillo-zygomatic index	77.7	78.4
Nasal height	4.7	4.7
Nasal breadth	3.6	3.6
Nasal index	76.7	76.5
Facial angle	69	68

MADRAS GOVERNMENT MUSEUM.

Bulletin, Vol. II, No. 2.

ANTHROPOLOGY.

Eurasians of Madras and Malabar ;
Note on Tattooing; Malagasy-Nias-Dravidians;
Toda Petition.

With Ten Plates.

BY
EDGAR THURSTON,
SUPERINTENDENT, MADRAS GOVERNMENT MUSEUM.

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ANTHROPOLOGY.

EURASIANS OF MADRAS CITY AND MALABAR.

It must be explained, at the outset, that my subjects for measurement and investigation were, with a special object in view, taken from the poorer classes, including the poorest of the poor, who feel more keenly than their more prosperous brethren the struggle for existence and the pinch of poverty, and whose physique I was specially anxious to gauge correctly.

I learn from Sir W. Hunter's 'Brief History of the Indian People' that the first modern Englishman, known to have visited India, was Thomas Stephens, Rector of the Jesuits' College in Salsette, in 1579. The name of the first Eurasian has not, in like manner, been handed down to posterity. The term Eurasian (Eur-asian) may, after the definition in 'Hobson-Jobson,'¹ be summed up as a modern name for persons of mixed European and Native blood, devised as being more euphemistic than half-caste or half-breed, and more precise than East Indian. According to Stocqueler (Handbk. Brit. India, 1854) the name Eurasian was invented by the Marquis of Hastings. By 'Ali Baba' the Eurasian is dismissed, with playful satire, in the following terms: "The Native papers say 'deport him'; the white papers say 'make him a soldier'; and the Eurasian himself says 'make me a Commissioner, give me a pension.'" In the 'Cyclopædia of India' Dr. Balfour defines East Indian as "a term which has been adopted by all classes in India to distinguish the descendants of Europeans and Native mothers. Other names, such as half-caste, chatikar, and chi-chi are derogatory designations. Chattikar is from chitta (trousers) and kar (a person who uses them). The Muhammadans equally wear trousers, but concealed by their long outer gowns. The East Indians

¹ Yule and Burnell.

² 'Twenty-one Days in India.'

are also known as Farangi (Franks), a person of Europe. The humbler East Indians, if asked their race, reply that they are Wallandez or Oollanday, which is a modification of Hollandais, the name having been brought down through the seventeenth and eighteenth centuries from the Dutch. East Indians have, in India, all the rights and privileges of Europeans. Races with a mixture of European with Asiatic blood possess a proud and susceptible tone of mind." For the purposes of the Lawrence Asylum, Ootacamund (*q.v.* p. 100), the word "East Indian" is restricted to the children of European fathers by East Indian or Native mothers, or of East Indian fathers and mothers, both of whom are the children of European fathers.

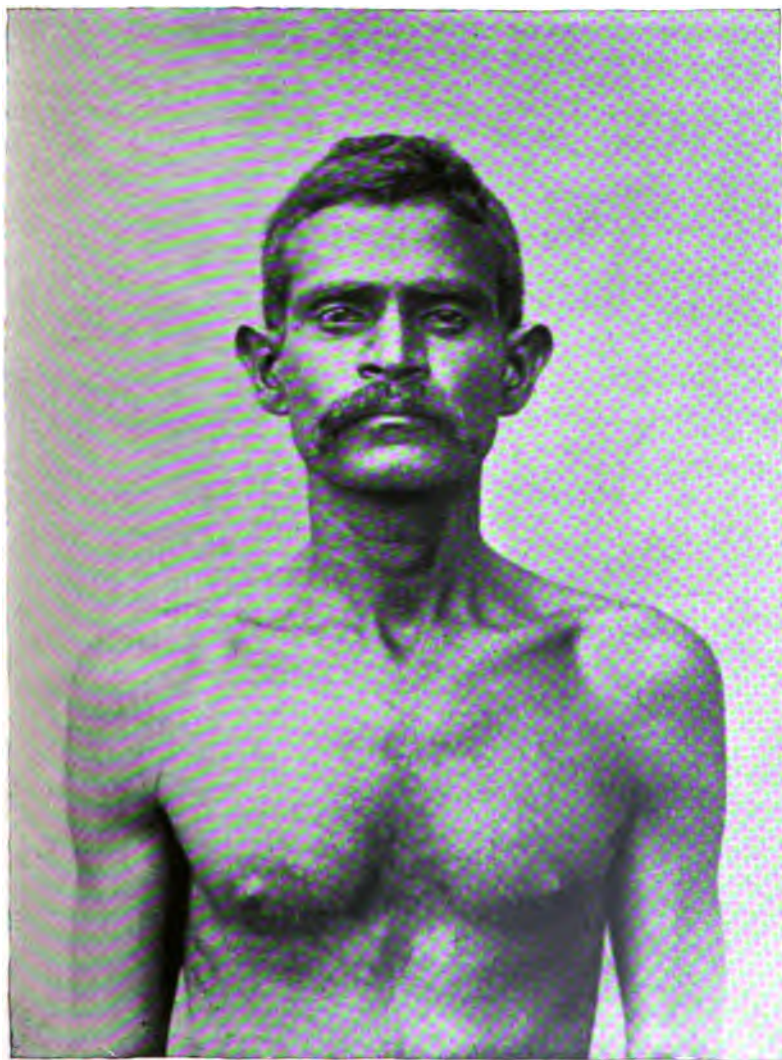
Some Eurasians have, it may be noted, had decorations or knighthood conferred on them, and risen to the highest possible position in, and gained the blue ribbon of Government service. Others have held, or still hold, positions of distinction in the various learned professions, legal, medical, educational, and ecclesiastical.

By a recent ruling of the Government of India it has been decided that Eurasians appointed in England to official posts in India are, if they are not statutory natives, to be treated as Europeans as regards the receipt of "exchange compensation allowance."

The Danes are said (Rush) to have produced, through Hindu women, children of European type and vigour, while such is certainly not the case with other European nations.

It is not generally known that the Anglo-Eurasian owes his origin, in great measure, to the direct influence of pepper. For I learn that "the English East India Company had its origin in the commercial rivalry between London and Amsterdam. In 1599, the Dutch raised the price of pepper against the English from 3s. to 6s. and 8s. per pound. The merchants of London held a meeting on the 22nd September at Founder's Hall, with the Lord Mayor in the chair, and agreed to form an association for the purpose of trading directly with India, and on the 8th October, 1600, the following ships were taken up for the first voyage to the East Indies:—

			Men.	Tons.
"Malice Scourge"	..	..	200	600
"Hector" ..	..	..	100	300
"Ascension" ..	..	..	80	240
"Susan" ..	..	..	80	240
A pinnace ..	..	..	40	100



MADRAS EURASIAN.

" Nearly forty years later, in 1639, Mr. Francis Day, the Chief of the British factory at Armagáon, purchased from the Rája of Chandragiri a site called Maderaspattam or Chinipattam, built Fort St. George, and became the founder of Madras, which was the first territorial possession of the Company in India."

The influence of the various European nations—Portuguese, Dutch, British, Danish, and French—which have at different times acquired territory in peninsular India, is clearly visible in the polyglot medley of Eurasian surnames, *e.g.*, Gomez, Gonsalvez, Pereira, Rozario, Cabral, Da Cruz, Da Costa, Da Silva, Da Souza, Fernandez, Fonseca, Lazaro, Henriquez, Xavier, Mendonza, Rodriguez, Saldana, Almeyda, Luxa, Heldt, Van Spall, Jansen, Augustine, Brisson, Corneille, La Grange, Lavocat, Pascal, Caubo (Corbeau, Mr. Crow?), De Vine, Aubert, Ryan, McKertish, Macpherson, Harris, Johnson, Smith, &c. Little did the early adventurers, in the dawn of the seventeenth century, think that, as the result of their alliances with the Native women, within three centuries banns of marriage would be declared weekly in Madras churches between, for example, Ben Jonson and Alice Almeyda, Emmanuel Henricus and Mary Smith, Augustus Rozario and Minnie Fonseca, John Harris and Clara Corneille, &c. Yet this has come to pass, and the Eurasian holds a recognised place among the half-breed races of the world resulting from modern 'civilization.'

The pedigree of the early Eurasian community is veiled in some obscurity. But the various modes of creation of a half-breed, which were adopted in those early days, when the sturdy European pioneers first came in contact with the Native females, were probably as follows :—

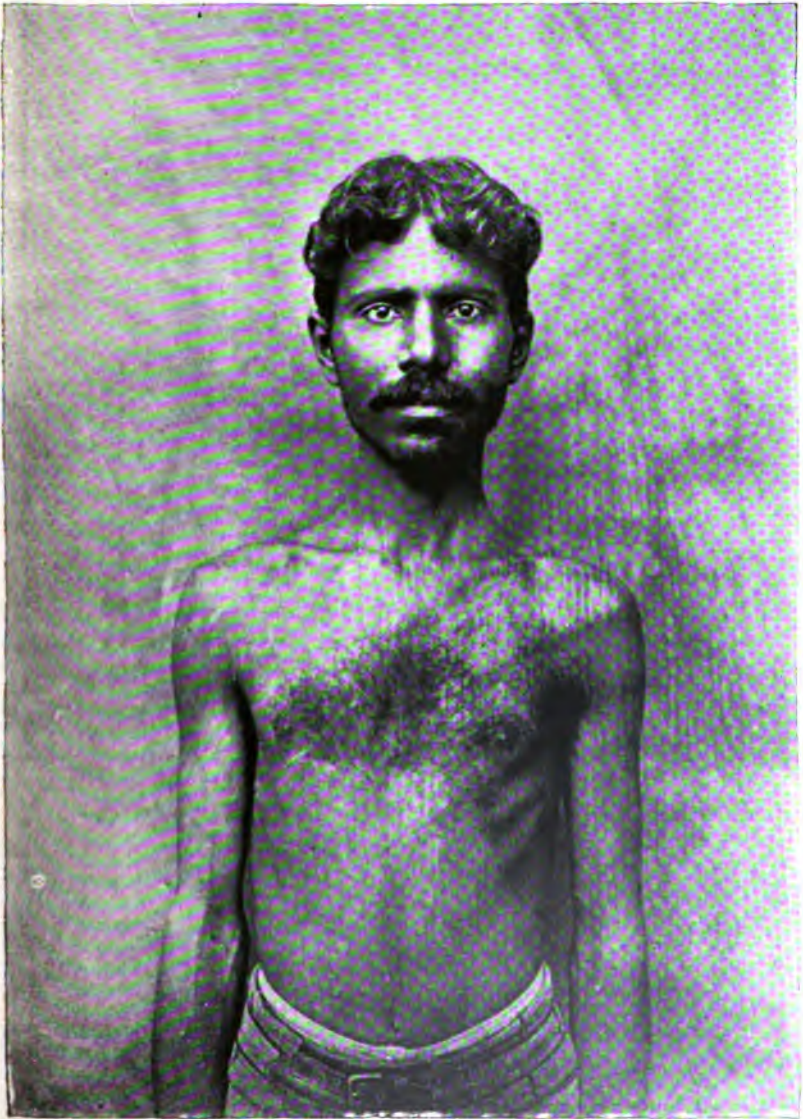
- | | |
|--|--|
| A. European man (pure) | B. Native woman (pure). |
| C. Male offspring of
A + B (first cross). | D. Native woman. |
| E. Female offspring of
A + B (first cross). | F. European man. |
| | G. Native man. |
| H. Male offspring of
C + D. | I. Cross-female offspring of
A + B. |
| | J. Native woman. |
| K. Female offspring of
C + D. | L. Cross-male offspring of
A + B. |
| | M. European. |
| | N. Native man. |

The Eurasian half-breed, thus established, has been perpetuated by a variety of possible combinations:—

European man	..	{ Eurasian woman. Native woman.
Eurasian man	..	{ Native woman. Eurasian woman. European woman.
Native man	..	{ Eurasian woman. European woman.

In the early days of the British occupation of Madras, the traders and soldiers, arriving with an inadequate equipment of females, contracted alliances, regular or irregular, with the women of the country. And in these early days, when our territorial possessions were keenly contested with both European and Native enemies, an attempt was made, under authority from high places, to obtain, through the medium of the British soldier, and in accordance with the creed that crossing is an essential means of improving a race, and rendering it vigorous by the infusion of fresh blood from a different stock, a good cross, which should be available for military purposes. The problem of a Eurasian army is, therefore, no new one, but one which was dealt with long ago in a practical manner, such as is no longer possible in these more advanced times. Later on, as the numbers of the British settlers increased, connexions, either with the Native women, or with the females of the recently founded Eurasian type, were kept up owing to the difficulty of communication with the mother-country, and consequent difficulty in securing English brides by the ordinary rules of sexual selection. Of these barbaric days the detached or semi-detached bungalows in the spacious grounds of the big private houses in Madras remain as a memorial. At the present day the conditions of life in India are, as the result of steamer traffic, very different, and far more wholesome. The Eurasian man seeks a wife as a rule among his own community; and in this manner the race is mainly maintained, though examples of first crosses, and the results of re-crossing between European and Eurasian are frequently met with.

The number of Eurasians within the limits of the Madras Presidency was returned, at the Census, 1891, as 26,643. But on this point I must call Mr. H. A. Stuart, the Census Commissioner, into the witness box. "The number of Eurasians," he writes, "is 26,643, which is 20·76 per cent.



MADRAS EURASIAN.

more than the number returned in 1881." The figures for the last three enumerations are given in the following statement :—

NUMBER OF EURASIANS.

Year.			Total.	Males.	Females.
1871	..	..	26,460	13,091	13,359
1881	..	..	21,892	10,969	10,923
1891	..	..	26,648	13,141	13,502

"It will be seen that, between 1871 and 1881, there was a great decrease, and that the numbers in 1891 are slightly higher than they were twenty years ago. The figures, however, are most untrustworthy. The cause is not far to seek; many persons, who are really Natives, claim to be Eurasians, and some who are Eurasians return themselves as Europeans. It might be thought that the errors due to these circumstances would be fairly constant, but the district figures show that this cannot be the case. Take Malabar, for example, which has the largest number of Eurasians after Madras, and where the division between Native Christians with European names and people of real mixed race is very shadowy. In 1871 there were in this district 5,413 Eurasians; in 1881 the number had apparently fallen to 1,676, while in 1891 it had again risen to 4,193, or, if we include south-east Wynaad, as we should do, to 4,439. It is to be regretted that trustworthy statistics cannot be obtained, for the question whether the true Eurasian community is increasing or decreasing is of considerable scientific and administrative importance.

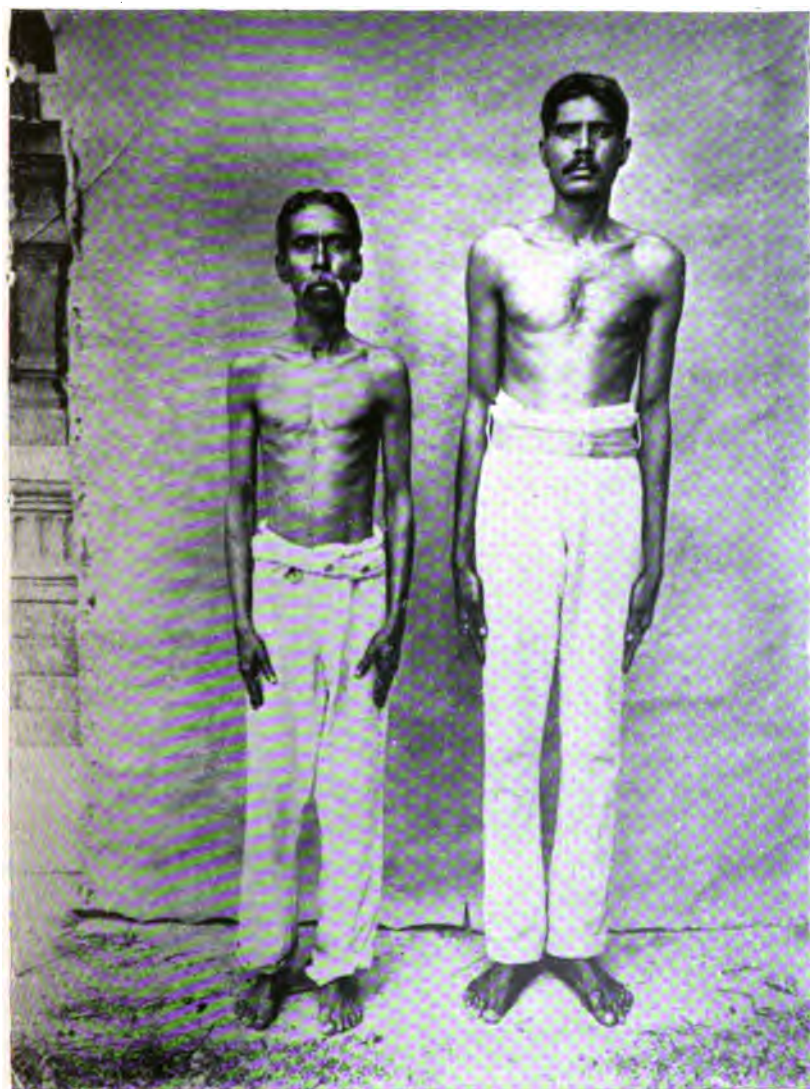
"The Eurasians form but a very small proportion of the community, for there is only one Eurasian in every 1,337 of the population of the Madras Presidency, and it is more than probable that a considerable proportion of those returned as Eurasians are in reality pure Natives who have embraced the Christian religion, taken an English or Portuguese name, and adopted the European dress and mode of living.

"In the matter of education, or at least elementary education, they are more advanced than any other class of the community, and compare favourably with the population of any country in the world. They live for the most part in towns, nearly one-half of their number being found in the city of Madras."

In connection with the fact that, at times of Census, Native Christians and Pariahs, who masquerade in European clothes, return themselves as Eurasians, and *vice versa*, it may be accepted that some benefit must be derived by the individual in return for the masking of his or her nationality. And it has been pointed out to me that (as newspaper advertisements testify) many ladies will employ a Native ayah rather than a Eurasian nurse, and that some employers will take Eurasian clerks into their service, but not Native Christians. It occasionally happens that pure-bred Natives, with European name and costume, successfully pass themselves off as Eurasians, and are placed on a footing of equality with Eurasians in the matter of diet, when they are in prison, being allowed the luxury of bread, butter, coffee, &c.

Mr. Stuart had at his command no special statistics of the occupations resorted to by Eurasians, but states that the majority of them are clerks, while very few indeed obtain their livelihood by agriculture. In the course of my enquiry, which included a majority of bread-winners and a sprinkling of loafers, the following varied occupations were recorded. It is noteworthy that, of 130 cases, no less than 33 returned their occupation as "fitter":—

Accountant.	Evangelist.
Attendant, Lunatic Asylum.	Filer.
Baker.	Fitter.
Bandsman.	Fireman.
Bill-collector.	Hammerer.
Blacksmith.	Harness-maker.
Boarding-house keeper.	Jewel-smith.
Boatswain.	Jointer.
Boilersmith.	Labourer.
Carpenter.	Livery-stable keeper.
Chemist's assistant.	Mechanic.
Clerk, Government.	Moulder.
Clerk, private.	Painter.
Commission agent.	Petition-writer.
Compositor.	Police inspector.
Compounder.	Porter.
Contractor.	Printer.
Copper-smith.	Proof-reader.
Crane attendant, harbour.	Railway—
Draftsman.	Auditor.
Electric-tram driver.	Chargeman.
Electric-tram inspector.	Engine-driver.
Engine-driver, Ice factory.	Engineer.



MADRAS EURASIANS.

Railway—
 Goods clerk.
 Guard.
 Locomotive inspector.
 Parcel clerk.
 Prosecuting inspector.
 Shunter.
 Signaller.
 Stationmaster.
 Store-keeper.
 Ticket-collector.
 Tool-keeper.
 Block-signaller.

Railway—
 Carriage examiner.
 Reporter.
 Rivetter.
 Saddler.
 Schoolmaster.
 Sexton.
 Spring-smith.
 Stereotyper.
 Steward.
 Telegraph clerk.
 Watch-maker.
 Watchman.

The bandsmen, who appeared before me, were tested with the apparatus for estimating appreciation of difference in musical pitch. All responded well to the test, except the performer on the big drum, who broke down hopelessly at a very early stage.

The Eurasians' fancy turns not lightly, but seriously to thoughts of love at a very early age, with the result that they sometimes marry, with all the pomp of bridal dress, cake and wine, when barely out of leading strings, and become burthened with the cares, anxieties, and responsibilities of paternity and maternity when they are mere boys and girls. One of my subjects, indeed, volunteered the information that he married a child-bride before she reached puberty. Whether they marry because, as with the Hindu, an unmarried man is looked down upon as having no social status, and as being an almost useless member of society, or whether for the "causes for which matrimony was ordained," I am unable to state precisely. But I may hazard a guess that it is because they have not acquired the power to "subordinate animal appetite to reason, forethought, and prudence." Whatever the reason, the results are but too frequently disastrous,—a plethora of children, brought up in poverty, hunger, and dirt; but little to earn and many to keep; domestic unrest; insolvency; and destitution. A virtuous state of celibacy has been recently advocated as a substitute for early marriage, and the argument brought forward that, if a man has sufficient intelligence and unselfishness to abstain from dragging a wife and children into poverty and misery, he will be sufficiently intelligent and unselfish to lead a pure life, and not swell the ranks of the illegitimate.

From the analysis of a hundred male cases, in which enquiries were specially made with reference to the married

state in individuals ranging in age from 21 to 50, with an average age of 33, I learn that 74 were married at the average age of 22-23; that 141 male and 130 female children had been born to them; and that 26, whose average age was 25, were unmarried. The limits of age of the men at the time of marriage were 32 and 16; of the women 25 and 13. The greatest number of children born to a single pair was 10. In only three cases, out of the seventy-four, was there no issue. In fifty cases, which were investigated, of married men with an average age of 34, 207 children had been born, of whom 91 had died, for the most part in very early life, from "fever" and other causes, among which malnutrition, and consequent marasmus, must take a foremost place. Remembering that house-rent should be paid, and that clothes and food have to be acquired, how, I ask myself, can cases such as the following lead other than a miserable existence, void of the pleasure of life?

Pay per mensem.	Age.	Age of marriage.	Children living.
RS.	YRS.	YRS.	NO.
15	26	21	3
10	27	18	5
15	25	21	2
20	39	19	7
6	38	22	2
18	27	18	6
10	25	19	2
30	40	20	8

To appreciate what misery is indicated here, it is only necessary to convert the rupees into annas, and divide them among the number of mouths to be fed, leaving house-rent and clothes out of the question; and, whether the rent be paid or no, clothes must of necessity be forthcoming—no mere dhoti, langūti, or sari, but clothes of European device, if not of the latest fashion.

The practical result of their want of thrift, and the widespread tendency to allow expenditure to exceed income, is that Eurasians in Government service frequently find themselves caught in the meshes of Rule 39, regulating the conduct of Government servants, which lays down that "it is undesirable that a man, who is in a chronic and hopeless condition of indebtedness, should be retained in the Government service. The anxieties attendant upon such a state must necessarily greatly detract from the value of the



MADRAS EURASIAN.

debtor's work, besides exposing him to temptations to dishonesty, which, in such circumstances, it is very difficult to resist." The following figures, gleaned from the statistics of the Insolvent Court during the five last years, bear directly on the condition referred to :—

Year.		Number of petitions filed by Eurasians.	Number of petitions filed during the year.	Eurasian percentage.
1893	..	45	233	19
1894	..	55	255	21
1895	..	35	237	14
1896	..	51	268	19
1897	..	53	297	18
Total	..	239	1,290	18

The percentage is certainly very high, when the Eurasian population is compared with the microscopic minority of Europeans, and the overwhelming majority of the Native community.

As examples of Eurasian improvidence, and a too literal adherence to the old time doctrine of taking no thought for the morrow, for the morrow shall take thought for the things of itself, the following cases may be cited :—

Monthly pay.	Total debt.	Debt in year's pay.
RS.	RS.	
9	3,500	32-33 years.
15	1,400	7-8 "
20	1,450	6-7 "
30	5,800	16 "
40	6,700	13-14 "
50	5,550	9-10 "
60	8,300	13-14 "

The racial position of Eurasians, and the proportion of black blood in their veins, are commonly indicated, not by the terms mulatto, quadroon, octoroon, sambo (or zambo), etc., but, as in the case of cotton, jute, coffee, and other crops, in fractions of a rupee. The European pure breed being represented by Rs. 0-0-0, and the native pure breed by 16 annas (=1 rupee), the resultant cross is, by reference to colour and other tests, gauged as being half an anna in the rupee (faint admixture of black blood; approaching European type); eight annas (half and half);

fifteen annas (predominant admixture of black blood; approaching native type), etc.

The Eurasian body being enveloped in clothes, it was not till they stripped before me, for the purposes of anthropometry, that I became aware how prevalent is the practice of tattooing among the male members of the community. Nearly all the hundred and thirty men, whom I examined in detail, were, in fact, tattooed to a greater or less extent on the breasts, upper arms, fore-arms, wrists, back of the hands, or shoulders. The following varied selection of devices in blue, with occasional red, is recorded in my case-book :—

Anchor.

Ballet girl with flag stars and stripes.

Bracelets round wrists.

Burmese lady carrying umbrella.

Burmese lady playing with parrot.

Bird.

Bugles.

Conventional artistic devices.

Cross and anchor.

Crown and flags.

Crossed swords and pistols.

Dancing girl.

Dancing girl playing with cobras.

Elephant.

Floral devices.

Flowers in pot.

Hands joined in centre of a heart.

Hands joined and clasping a flower.

Heart.

Heart and cross.

Initials of the individual, his friends, relatives, and inamorata, sometimes within a heart or laurel wreath.

Lizard.

Mercy (word on left breast).

Mermaid.

Portraits of youth and his lady-love.

Princess of Wales.

Royal arms and banners.

Sailing boat.

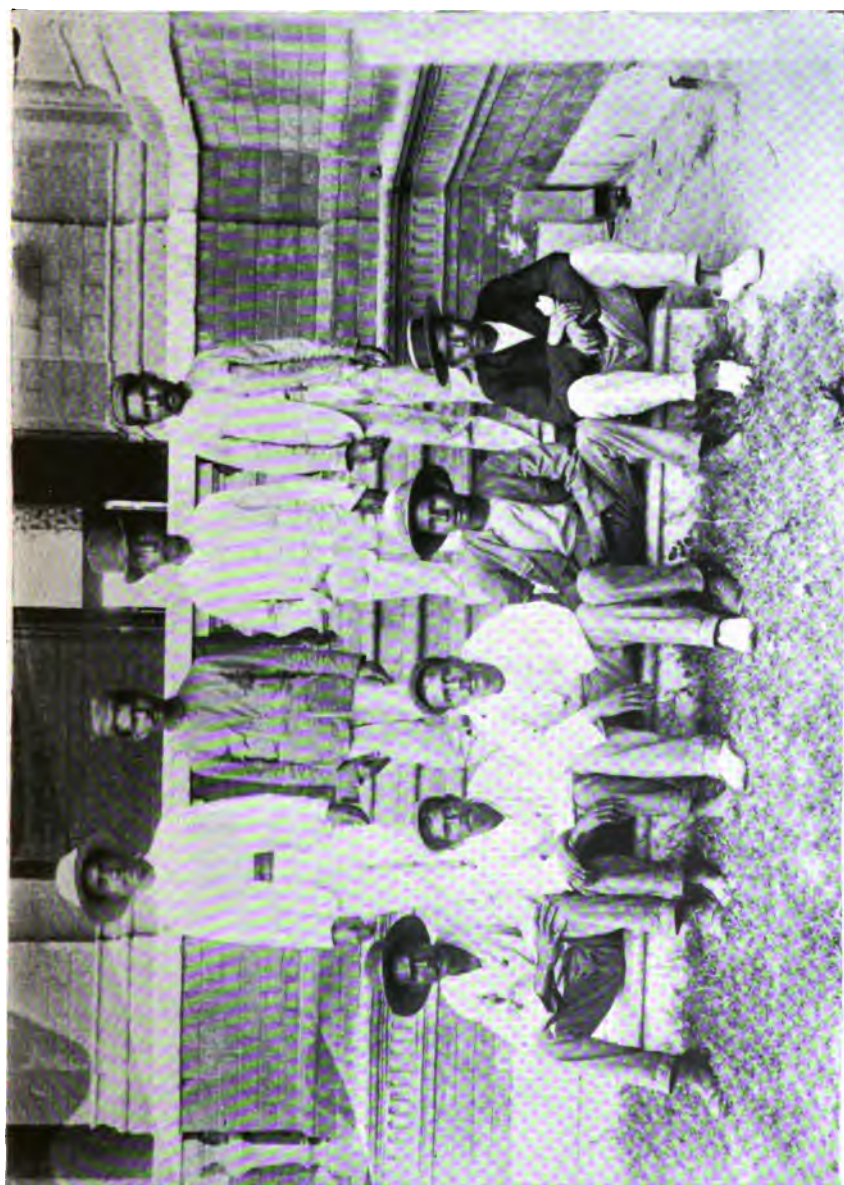
Scorpion.

Solomon's seal.

Steam boat.

Svastika (Buddhist emblem).

Watteau shepherdess.



MADRAS EURASIANS.

The most elaborate patterns were executed by Burmese artists. The initials, which preponderated over other devices, were, as a rule, in Roman, but occasionally in Tamil characters. In many instances the tattooing was barely visible against the dark skin, and the main objects of the operation—beauty and personal adornment—completely lost. A propos of tattooing in the male sex, the legend goes that the goddesses of the tattooers “swam from Fiji, to introduce the craft to Samoa, and, on leaving Fiji, were commissioned to sing all the way ‘Tattoo the women, but not the men’”. But they got muddled over it in the long journey, and arrived at Samoa singing “Tattoo the men, but not the women.”²

In colour the Eurasians afford, as is natural in a mixed race, examples of the entire colour-scale from sooty-black, through sundry shades of brown and yellow, to pale white, and even, as a very rare exception, florid or rosy. The darkening of the skin in Hindu half-breeds with advancing age, and the dark colour of the pudenda, noticed by D’Orbigny and Troyer (*Bull. Soc Ethnol.* May 22nd, 1846), were very conspicuous in many cases which came under observation. So, too, in individuals with otherwise fair skin, was the tell-tale pigment on the neck, knees and elbows, as also in the axillæ, the glands of which, as in the Native, pour out, under the influence of emotion or exercise, a profuse watery secretion. The pilous or hairy system, which was, in the cases recorded, uniformly black, repeatedly conforms as regards its distribution to the native type; and the eyebrows are frequently united across the middle line by bushy hairs. The hair of the head may be straight, and, when clipped, recall to mind a Bengali Babu with his close-cropped hair devoid of parting. Or it may be wavy or curly (woolly never), and dressed, like that of a European, in a variety of ways, according to the fancy of the owner. Premature greyness and baldness, *arcus senilis*, and early senility, were noted in many instances. The colour of the iris, like that of the skin, is liable to great variation, from lustrous-black to light, with a predominance of dark tints. Blue was observed only in a solitary instance.

The Eurasian resists exposure to the sun better than the European, and, while many wear *solah topis* (sun hats), it is by no means uncommon to see a Eurasian walking about

² *Journ. Anth. Inst.*, Vol. XVII, 1888, p. 312.

in the middle of a hot day with his head protected only by a straw hat or cap.

In a heated discussion on the "Anglo-Indian in India," which has recently been carried on in the columns of the 'Pioneer,' a retired Indian Staff Corps Colonel suggested the raising of a division of eight regiments, two of cavalry, six of infantry, four of the latter to consist of specially selected Eurasians only, two of Indo-Europeans only. "If," he says, "treated with fair liberality as regards pay, promotion, and prospects, I feel every confidence that a fine, and in every way reliable force may be thus created for general service anywhere (like the Native grandly efficient army) Such force might be very considerably expanded later on. Three field batteries, one of Indo-Europeans only, and two of Eurasians only, might also be added, rendering the force quite complete in itself." Let us, bearing in mind that the Eurasian community of the Madras Presidency is a limited one on which to draw for military purposes, and that many of those who are physically fitted would be unwilling to enlist, examine the physique of the poorer classes, from the ranks of whom recruits would have to be obtained.

The average height of the Eurasian, according to my measurements of 130 subjects, is 166·6 cm. (5 feet 5½), and compares as follows with that of the English and various Native classes, inhabiting the city of Madras, which have been examined by me :—

						CM.
English	..	..	..	..	..	170·8
Eurasians	..	..	..	..	..	166·6
Muhammadans	..	..	..	..	..	164·5
Brāhmans	..	..	..	..	..	162·5
Pallis	..	..	..	..	..	162·5
Vellalas	..	..	..	..	..	162·4
Pariahs	..	..	..	..	..	161·9

The height, as might be expected, comes between that of the two parent stocks, European and Native, and had, in the cases examined, the wide range of 30·8 cm.—the difference between a maximum of 183·8 cm. (6 feet) and a minimum of 153 cm. (5 feet). The high ranges between maxima and minima (*vide* table xvii), which are specially marked in the case of stature and the measurements dependent thereon, and of the nose, are readily explained

on the general principle that pure races exhibit a more uniform, and mixed races a variegated type, and this variation increases as the intermixture progresses (Waitz).

The story goes that many years ago, during the fighting days in Southern India, a Highland regiment, as the result of concubinage with the Native women of a certain quarter of the city of Madras, left behind them a half-breed offspring, reared up as Natives, whose descendants, are, owing to their stature, still recognised, at the present day, as the Madras Highlanders.

The average weight of my Eurasians, in clothes with boots, was a mere 7 st. 9½ lbs. ; the weight ranging between 12 stone in a flabby individual aged 30 years, and 5 st. 6 lbs. in a man 40 years old. How small this weight is for adults may be emphasised by reference to the fact, based on a series of experiments, that the weight of growing English school boys (in in-door dress with boots on) between the ages of 16 and 17, ranged, in 79·6 per cent. of the cases examined, between 8½ stone and 12 st. 5½ lbs. Only in 3 out of 103 cases was the weight below 7 stone.⁴

The average chest measurement, taken over the nipples with the arms above the head and hands joined, was 79·1 cm. (31 inches). In the following tabular statement this average is compared with the average chest-girth of the classes noted above, and with the average relative to stature = 100 :—

	Average.	Average relative to stature = 100.
English	93·9	54
Brāhmans	81	49·8
Vellālas	79·8	49·1
Pariahs	79·3	48·9
Pallis	79·2	48·7
Muhammadans ..	79	48
Eurasians	79·1	47·5

The chest-girth of the Eurasians is, then, relatively to stature, less than that of any of the classes under review. Of far greater importance than actual chest-girth, as everyone who has had to deal with recruiting knows full well, is the play of the chest, viz., the vital capacity, or extreme

⁴ Fergus and Rodwell. Journ. Anth. Inst., Vol. IV, 1875, p. 128.

differential capacity of the lungs. This is best estimated by means of a modified gasometer, called the spirometer, which registers the total amount of air which can be given out by the most forcible expiration following upon a most forcible inspiration. Tested with such an instrument, the majority of the Eurasians under examination broke down owing, in great measure, to the feeble development of the pectoral and other inspiratory muscles, whose function is to inflate the lungs.

In the following table the Eurasian shoulder-breadth, measured between the external surfaces of the prominences of the shoulders about 5 cm. below the acromion, is compared with that of the same classes as before :—

				Average.	Average relative to stature = 100.
Vellalas .. .. .	..	..	..	39.7	24.4
Pariahs .. .. .	..	..	..	39.4	24.3
Brāhmans .. .. .	..	..	..	39.3	24.2
Muhammadans .. ..	..	..	..	39.8	24.2
Pallis .. .. .	..	..	..	39.4	24.2
Eurasians .. .. .	..	..	..	39.2	23.6

The shoulder-breadth is thus seen to be less, both actually and relative to stature, in the Eurasians than in the Native classes. The deficiency in breadth must be attributed both to narrow osteological build, and to the feebly developed condition of the deltoid muscles.

As specimens of the all too common weakly Eurasian humanity, whose living was gained with their hands, the cases in the two following tables, taken from a very large number, may be cited :—

Age.	Weight.	Height.	Chest.	Occupation.
YRS.	ST. LB.	FT. IN.	INCHES.	
28	9.1	6	31.4	Fitter.
26	7.1	5.7½	29.1	Engine driver.
22	7.9	5.6	29.5	Turner.
21	7.6	5.4½	30.3	Hammerer.
29	7.4	5.4½	29.7	Do.
35	6.6	5.2	26.4	Printer.
37	6.1	5.1½	28.6	Fitter.
23	6.4	5.1½	28.5	Printer.
19	5.9	5.1½	27.1	Blacksmith.

Height. FT. IN.	Girth of upper arm.		Hand- breadth. INCHES.	Girth round epigastrium (stomach). INCHES.
	Relaxed. INCHES.	Contracted. INCHES.		
5-7½	..	..	..	23·2
5-1½	7·3	7·9	..	22·8
5-4½	8·4	9·5	..	..
5-8	8·2	9·4	..	..
5-2½	..	..	2·6	..
5-4½	..	..	2·6	..
5-2½	..	..	2·5	..

I have, in the course of the present enquiry, examined many Native women, engaged as coolies in road-repairing, and found arms with good solid muscle, shoulders, and chests, of which some of these feebly developed individuals might well be envious. But the Indian cooly woman is notoriously an excellent beast of burthen, and I recall to mind the legend of the Bhutia woman, who is reputed, in the days before the hill railway was open, to have carried, unaided, a grand piano on her head the whole way from the foot of the hills to Darjiling.

Contrast with the above the following—all the direct result of re-crossing between European man and Eurasian woman. It will be noted that all are, some slightly, others considerably above the average. The physiological significance of this fact, and the possibilities in connection therewith, are obvious, and need not be dilated on at length. Suffice it to state that the product of alliances between British men and Eurasian women show the least signs of physical degeneration, and possess broader shoulders, hips, and hands, greater chest-girth, wider forehead, and more muscle, as the result of re-vivification of the stock by direct British intervention :—

Age.	Weight, average 7 st. 9½ lb.	Height, average 5 ft. 5 in.	Chest, average 31·2 in.	Occupation.
21	9·8	5-7½	31·5	Fitter.
28	9·3	5-7½	33·5	Do.
40	10·9	5·7	34·7	Clerk.
38	9·2	5·7	32·5	Labourer.
22	9·4	5·6	34·3	Boil-r-smith.
26	10	5-7½	33	Railway guard.

As a clear indication of the physique, which the poor Eurasian should aspire to with a view to his becoming a soldier, I publish (table xviii) side by side the averages,

etc., of a series of physical measurements of 50 sepoy^s of the 28th Madras Infantry and of my 130 Eurasians; and, further, in table xix, statistics of the same measurements in 50 sepoy^s and 50 Eurasians between the recruiting ages of 18 and 25.

Leaving hand-grip, as tested by the dynamometer, in which the Eurasians displayed lamentable weakness (an average of only 65 lbs.), out of the question, and considering weight, chest-girth, and shoulder-breadth, the sepoy average was, as shown by the following tabular statement, only reached in four cases out of the 50 examined between the ages of 19 and 25 :—

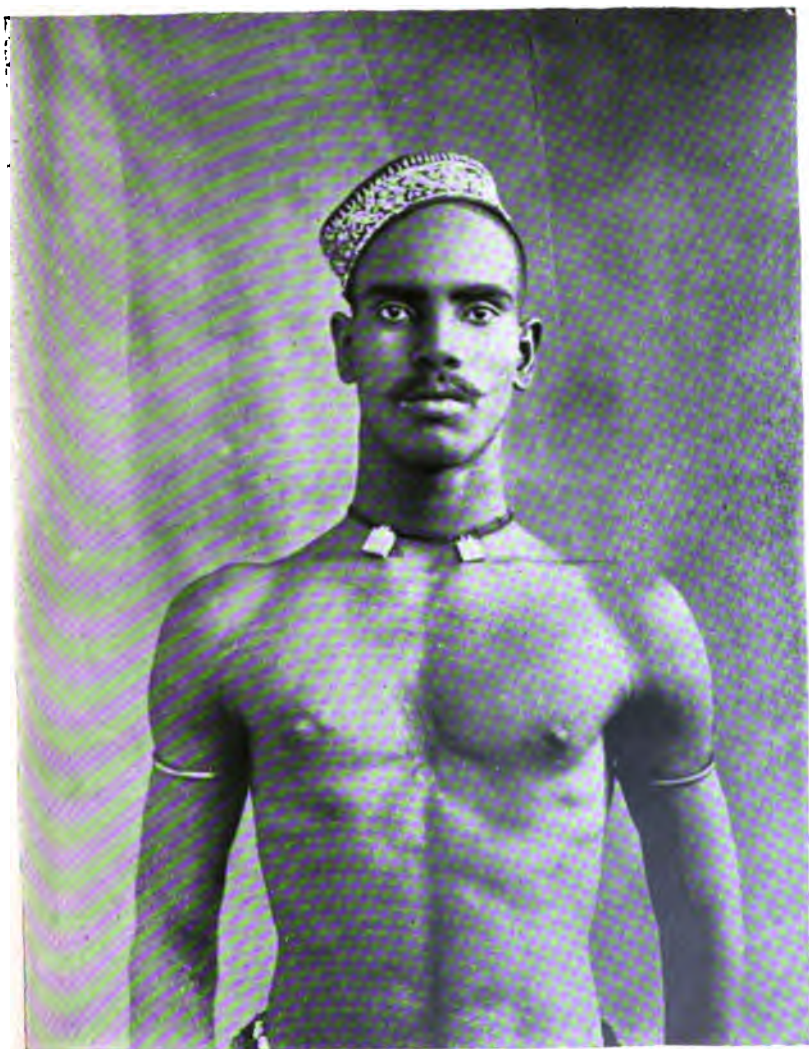
	Weight.	Chest.	Shoulders.
	LB.	CM.	CM.
	127	86·5	41·5
	139	87	42·1
	150	87·5	43·9
	136	84·5	43·3
Sepoy average ...	125	84	41·6

The Eurasian mean above the average, taken as a whole, fell short, as shown below, of the sepoy average :—

			Eurasian mean above the average.	Sepoy average.
Weight	..	..	122 lb.	125 lb.
Chest	..	..	82 cm.	84 cm.
Shoulders	..	..	40·5 "	41·6 "
Dynamometer	..	..	72·4 lb.	80 lb.

The figures in tables xviii to xxi suffice, of themselves, to show that the average physique of the Eurasians is far below that required for military purposes. And this deficiency in physique is accentuated by a study of the following tables of comparison drawn up from the detailed figures in tables xx and xxi :—

* The periodical fanatical outbreaks in the Moplah (or Máppila) community of Malabar are well known to us in Southern India. It is of interest, therefore, that, since 1895, 150 Moplals have enlisted in the 25th Madras Infantry, which is stationed at Cannanore, under conditions similar to those applying to the rest of the Native Army. They have, I am told, become most amenable to discipline; and training and good diet have improved their physique, which was good at the commencement.



MADRAS SEPOY.

WEIGHT, LB.

—	80-90	90-100	100-110	110-120	120-130	130-140	140-150	150-160
Sepoys ... ..	...	1	4	11	19	9	4	2
Eurasians	6	9	12	13	4	5	1	...

CHEST, CM.

—	60-70	70-80	80-90	90-100
Sepoys ... ..	...	5	42	3
Eurasians	3	33	14	...

SHOULDERS, CM.

—	33-37	37-38	38-39	39-40	40-41	41-42	42-43	43-44	44-45	45-46
Sepoys ... ..	...	...	4	5	6	15	12	4	2	2
Eurasians	9	10	8	9	10	2	...	2	...	...

Putting the figures in the last three tables in terms of percentages, we obtain the following results, which speak for themselves :—

WEIGHT.

				Below 170 LB.	Above 180 LB.
Sepoys ..	..	..	..	32	68
Eurasians	..	..	..	80	20

CHEST.

				Below 80 CM.	Above 80 CM.
Sepoys ..	..	..	..	10	90
Eurasians	..	..	..	72	28

SHOULDERS.

				Below 41 CM.	Above 41 CM.
Sepoys ..	..	..	..	30	70
Eurasians	..	..	..	92	8

M

Turning now to head measurements, the average length of the Eurasian head is 18·6 cm. and the breadth 14·1 cm. And it is to be noted that, in 63 per cent. of the cases examined, the breadth exceeded 14 cm. In the length of the head there is nothing distinctive as between the Eurasians and the other classes under review, the difference only amounting to ·1 cm. The breadth of the head, on the contrary, is appreciably greater in Eurasians and Brāhmans (Aryo-Dravidians) than in Muhammadans (some of whom are immigrants with an admixture of Dravidian blood) and the three indigenous classes, Vellālas, Pallis, and Pariahs :—

			Length.	Breadth.	Index.
			CM.	CM.	
Brāhmans	..		18·6	14·2	76·5
Eurasians	..		18·6	14·1	76
Muhammadans	..		18·7	13·9	76·1
Vellālas	..		18·6	13·8	74·1
Pariahs	..		18·6	13·7	73·6
Pallis	..		18·6	13·6	73

The relative breadth of the head is very clearly brought out by the following analysis of forty subjects belonging to each of the six classes, which shows at a glance the preponderance of heads exceeding 14 cm. in breadth in Eurasians, Brāhmans, and (to a less degree) Muhammadans, and of heads below 14 cm. in breadth in the more dolichocephalic Vellālas, Pallis, and Pariahs :—

			12-13	13-14	14-15	15-16
			CM.	CM.	CM.	CM.
Eurasians	..	..	..	11	27	2
Brāhmans	..	..	1	9	27	3
Muhammadans	..	..	2	17	21	..
Vellālas	..	..	..	24	16	..
Pariahs	..	..	..	27	13	..
Pallis	..	..	3	30	7	..

The head of a cross-breed, it has been said, generally takes after the father, and the breadth of the Eurasian head is a persisting result of European male influence. The effect of this influence is clearly demonstrated in the following cases, all the result of re-crossing between British men and Eurasian women :—

		Length.	Breadth.
		CM.	CM.
		19	14.5
		18.4	14.2
		19.2	14.2
		20.2	14.6
		19	14.6
		19.4	14.3
Average		19.2	14.4
Eurasian average		18.6	14.1

The character of the nose is, as those who have studied ethnology in India well appreciate, a most important factor in the differentiation of race, tribe, and class, and in the determination of pedigree. "No one," Mr. Risley writes,* "can have glanced at the literature of the subject, and in particular at the Védic accounts of the Aryan advance, without being struck by the frequent references to the noses of the people whom the Aryans found in possession of the plains of India. So impressed were the Aryans with the shortcomings of their enemies' noses that they often spoke of them as 'the noseless ones,' and their keen perception of the importance of this feature seems almost to anticipate the opinion of Dr. Collignon that the nasal index ranks higher as a distinctive character than the stature, or even the cephalic index itself." The Eurasian nose, as is natural in a mixed race, exhibits a combination of the long, narrow (leptorhine) type of the higher races, and the broader (mesorhine and platyrhine) type of the lower classes, as shown in the following analysis of the nasal indices of forty Eurasians, Brāhmins, Pallis and Pariahs:—

		Leptorhine. 55-69.9.	Mesorhine. 70-84.9.	Platyrhine. 85-99.9.
Eurasians .. ..	..	19	19	2
Brāhmins .. ..	..	6	24	10
Pallis .. ..	..	3	31	6
Pariahs .. ..	..	2	25	13

It may be noted, *en passant*, that the Brāhmin nose belongs to the platyrhine type in 25 per cent. of the cases here analysed (*vide* Bull., Vol. II, No. 1).

Speaking in general terms, it may be said that the noses with high nasal index are possessed by Eurasians of short

* Journ. Anth. Inst., Vol. XX, 1891, pp. 249-50; see also Madras Museum Bull., Vol. II, No. 1, pp. 53-58.

stature and dark skin; noses with low index by those of medium stature or tall, and fairer skin. In the following table statistics are given concerning the measurements of the nose and the nasal index in Eurasians and the other classes selected for comparison with them :—

		Length.	Breadth.	Index.
		CM.	CM.	
Eurasians .. ..	..	5.1	3.5	69.5
Muhammadans ..	..	4.9	3.4	79
Vellalas .. ..	..	4.7	3.4	73.1
Brāhmans .. ..	..	4.7	3.6	76.7
Pallis .. ..	..	4.6	3.6	77.9
Pariahs .. ..	..	4.5	3.6	80

Examination of this table shows that there is a gradation from the leptorhine type of the Eurasian to the platyrhine type of the Pariah, and that the change of type from leptorhine to platyrhine is due to shortening of the length of the nose rather than to increase in its breadth. For, as the figures show, while there is a difference of .6 cm. between the average lengths of the Eurasian and Pariah noses, there is only a difference of .2 cm. in the average breadths thereof. The difference in the length of the nose is clearly brought out by comparison, in forty members of each of my six classes, of the number of times in which the length reached from 5 to 6 cm. or from 4 to 5 cm.

				Length.	
				5-6 CM.	4-5 CM.
Eurasians .. ..	..	..	..	21	19
Muhammadans ..	..	..	..	16	24
Vellalas .. ..	..	..	..	6	34
Brāhmans .. ..	..	..	..	5	35
Pallis .. ..	..	..	..	5	35
Pariahs .. ..	..	..	..	1	39

The results obtained, in like manner, by comparison of the breadth of the nose are not nearly so eloquent, though the greater breadth of the nose in individual Pariahs is en evidence :—

				Breadth.	
				4-5 CM.	3-4 CM.
Eurasians .. ..	..	..	..	1	39
Muhammadans ..	..	..	..	2	88
Brāhmans .. ..	..	..	..	0	40
Vellalas .. ..	..	..	..	1	39
Pallis .. ..	..	..	..	3	37
Pariahs .. ..	..	..	..	5	35

In the subjoined table, based on the examination of forty members of each class, who are classified according to their nasal index, the high proportion of Eurasians, Muhammadans and Vellalas with indices ranging between 60 and 70, and of Brāhmans, Pallis, and Pariahs with indices ranging between 80 and 90, is at once manifest, and requires no comment :—

	60-70.	70-80.	80-90.	90-100.
Eurasians	19	17	3	1
Muhammadans ..	17	18	4	1
Vellalas	14	22	3	1
Brāhmans	6	19	14	1
Pallis	3	25	9	3
Pariahs	2	17	19	2

Some final words are necessary on liability to certain diseases, as a differentiating character between Eurasian and European. The Census Commissioner, 1891, states that Eurasians seem to be peculiarly liable to insanity and leprosy. To these should be added elephantiasis (filarial disease), concerning which Surgeon-Major J. Maitland writes as follows : " Almost all the old writers on elephantiasis believed that the dark races were more susceptible to the disease than white people ; but it is extremely doubtful if this is the case. It is true that in those countries where the disease is endemic, the proportion of persons affected is much greater amongst the blacks than amongst the whites ; but it has to be borne in mind that the habits of the former render them much more liable to the disease than the latter. The majority of the white people, being more civilised, are more careful regarding the purity of their drinking-water than the Natives, who are proverbially careless in this respect. In India, although it is comparatively rare to meet with Europeans affected with the disease, yet such cases are from time to time recorded. Eurasians are proportionately more liable to the disease than pure Europeans, but not so much so as Natives. Doctors Patterson and Hall of Bahia ⁸ examined the blood of 309 persons in that place, and found the following proportions affected with filaria ; of whites, 1 in 26 ; of blacks, 1 in 10½ ; of the mixed race, 1 in 9. Doctor Laville⁹ states that in the Society Islands, out of a total of 13 European and American residents,

⁷ 'Elephantiasis and allied disorders.' Madras, 1891.

⁸ 'Veterinarian.' June 1879.

⁹ 'Endemic skin and other diseases of India.'—FOX AND FARQUHAR.

11 were affected with elephantiasis. Taking all these facts into consideration, together with our knowledge of the pathology of the disease, I do not think we are justified in saying that the black races are more *susceptible* to the disease than white people. On the other hand, owing to the nature of their habits, they are much more *liable* to the diseases than are the white races."

During the five years, 1893—97, 98 Eurasians suffering from filarial diseases were admitted into the General Hospital, Madras.

To Surgeon-Colonel W. A. Lee, Superintendent of the Government Leper Asylum, Madras, I am indebted for the following note on leprosy in its relation to the Eurasian and European communities:—

"You ask me for information as to the occurrence of leprosy among Europeans and Eurasians, and for statistics of the numbers which were treated in the Government Leper Asylum during the five years, 1893—97. You also add that you wish to bring out the point that leprosy is a distinguishing character as between Eurasians and Europeans.

"Although the latter may possess greater vigour of constitution, and, therefore, a better capacity of resistance, they are by no means immune to the disease, which, in the majority of instance, is contracted by them through coitus with leprous individuals.

"Leprosy is one of the endemic diseases of tropical and sub-tropical countries, to the risk of contracting which Europeans who settle on the plains in India, and their offspring from unions with the inhabitants of the land, as well as the descendants of the latter, become exposed, since, by the force of circumstances, they are thrown into intimate contact with the Native population.

"A portion of the accommodation of the Government Leper Hospital at Madras, which was founded in 1841, is reserved for European and Eurasian lepers; but little can be gleaned from the records as regards the incidence of the disease on the former class, as scanty attention appears to have been bestowed on accuracy of classification. For instance, of 11 'Europeans' who were under treatment in the years 1890—97 (*vide* table xxii), all save two had their birth-place in India or Burma, so that few of them could have been of pure or unmixed European parentage.

"The Eurasian community furnishes a considerable number of lepers, and the disease, once introduced into a family, has a tendency to attack several of its members, and to re-appear in successive generations, occasionally skipping one—a feature akin to the biological phenomenon known as atavism, but of perhaps doubtful analogy, for the possibility of a fresh infection or inoculation has always to be borne in mind. There are numerous instances of such hereditary transmission among the patients, both Native and Eurasian, in the Government Leper Hospital.

"The spread of the disease by contagion is slow, the most intimate contact even, such as that between parent and child, often failing to effect inoculation. Still there is much evidence in support of its being inoculable by cohabitation, prolonged contact, wearing the same clothing, sharing the dwelling, using the same cooking and eating utensils, and even by arm-to-arm vaccination. Influenced by a belief in the last mentioned cause, vaccination was formerly regarded with much suspicion and dislike by Eurasians in Madras. But their apprehensions on this score have abated since animal vaccine was substituted for the humanised material. It has also for long been a popular belief among the same class that the suckling of their infants by infected Native wet-nurses is a common source of the disease.

"Attempts to reproduce leprosy from supposed pure cultures of the leprosy bacillus have invariably failed; and this strengthens the belief that the disease would die out if sufferers from the tubercular or mixed forms were segregated, and intermarriage with members of known leprosy families interdicted. Experience shows that, where such marriages are freely entered into, a notable prevalence of the disease results, as in Pondicherry for example, where the so-called creole population is said to contain a large proportion of lepers from this cause."

Writing concerning the prevalence of insanity in different castes, the Census Commissioner, 1891, states that "it appears from the statistics that insanity is far more prevalent among the Eurasians than among any other class. The proportion is 1 insane person in every 410. For England and Wales the proportion is 1 in every 307, and it is significant that the section of the population of Madras, which shows the greatest liability to insanity, is that which has an admixture of European blood. I have no

information regarding the prevalence of insanity among Eurasians for any other province or State of India except Mysore, and there the proportion is 1 in 306."

For the statistics relating to insanity given in table xxiv, I am indebted to Surgeon-Captain C. H. Leet Palk, Superintendent of the Government Asylum. It was found impossible to separate Europeans into home-bred and country-bred; and it is very possible that some Eurasians are included among them. The total number of Eurasians, recorded as being admitted into the asylum during the five years 1893—97, was 49, viz., 6.59 per cent. of the total admissions. Leaving out of question the Europeans, in whom, owing to the preponderance of the male sex (including soldiers) in Madras, a greater number of male than female lunatics is to be expected, and considering only Eurasians and Natives, the far higher proportion of female as compared with male lunatics in the Eurasian than in the Native community, is very conspicuous. Taking, for example, the numbers remaining in the asylum in 1894, whereas the proportion of Eurasian males to females was 33:31, that of Natives was 30.6:6.8, and the high proportion of female Eurasian inmates is visible in the remaining years under review. The subject seems to be one well worthy of further study by those competent to deal with it.

The alleged causes of insanity in the 49 Eurasian cases were as follows:—

Hereditary	..	..	..	..	10
Domestic trouble	..	..	..	..	10
Irregular sexual habits	..	..	..	..	6
Disappointment	..	..	..	..	4
Epilepsy	..	..	..	..	4
Nervous shock	..	..	..	..	4
Love and jealousy	..	..	..	..	3
Intemperance	..	..	..	..	2
Sun-stroke	..	..	..	..	2
Congenital	..	..	..	..	1
Senile	..	..	..	..	1
Privation and starvation	..	..	..	..	1
Religion	..	..	..	..	1
Fever	..	..	..	..	1

On the conclusion of my investigation of the Eurasians of the city of Madras, I proceeded to Calicut, the capital of the Malabar district, as being the most convenient centre for comparing the Eurasians of the west, with those of the

east coast. My visit was by chance coincident with the commemoration of the four hundredth anniversary of the arrival of Vasco da Gama at Calicut after his discovery of the sea-route from Europe to India, which I celebrated in a unique manner by recording the physique of the community resulting, in the first instance, from alliances between the Portuguese adventurers and the attractive Native women, and left as a legacy to the later British occupants. Concerning the origin of the Indo-Portuguese half-breed I learn¹⁰ that, on his return from the recapture of Goa, Albuquerque brought with him the women he had carried away when the Portuguese were driven out of the place. As soon as affairs became tolerably settled again at that port, he had them converted to Christianity, and married them to Portuguese men. No less than 450 of his men were thus married in Goa, and others who desired to follow their example were so numerous that Albuquerque had great difficulty in granting their requests. The marriage of Portuguese men to Native women had already been sanctioned by Dom Manoel, but this privilege was only to be conceded to men of proved character, and who had rendered good services. Albuquerque, however, extended the permission to marry far beyond what he was authorised to do, and he took care that the women so married were the daughters of the principal men of the land. This he did in the hope of inducing them to become Christians. To those who were married Albuquerque allotted lands, houses and cattle, so as to give them a start in life, and all the landed property which had been in possession of the Moorish mosques and Hindu pagodas he gave to the principal churches of the city, which he dedicated to "Santa Catherina."

The very names of my subjects recalled to mind Pedro Alvares Cabral, who anchored before Calicut in 1500, and established a factory at Cochin; the first Portuguese Governor, Dom Francisco de Almeida; André Furtado de Mendonca, who concluded a treaty with the king of Calicut; and many others, whose exploits are handed down to posterity in the Indo-Portuguese archives. Subjoined is a comparative statement showing the names of the Eurasians, whom I have personally examined in Madras and Malabar. A cursory glance thereat shows a marked preponderance of Portuguese names in Malabar, which is readily explained

¹⁰ DANVERS—'The Portuguese in India', 1894.

by reference to the history of the Portuguese in India, aided by a map showing how thickly studded with Portuguese settlements the west coast was as compared with the east coast :—

Eurasians, Madras.	Eurasians, Calicut.
Almeida.	Allamo.
Anthony (2).	Ambrose.
Assey.	Augustine.
Aubert.	
Bantleman.	Barbosa (2).
Bartholomew.	Bastian.
Bastian (2).	Benjamin (2).
Bedford.	Benny.
Bello.	
Binny.	
Bird (2).	
Borgonah.	
Brailly.	
Brisson.	
Brown.	
Calderwood.	Cabral (3).
Carless.	Carvalho.
Caubo.	Conceicao (3).
Christian (2).	
Clarke (2).	
Cleary.	
Clegg.	
Collins.	
Corneille.	
Cornelius.	
Da Costa.	Da Cruz (9).
Da Silva (2).	Da Gama.
Daniel.	Da Silva.
David (2).	David.
Dauids.	Davis.
Davy.	De Sousa (4).
De Roza.	De Morias (2).
Devine.	Diaz (3).
Dennis.	
Dimney (2).	
Edwards (2).	Escrador (2).
Fernandes (2).	Fernandes (12).
French.	
Gambler.	Gabriel (2).
Goodman.	Gomes (3).
Gragbisse.	Gonsalves.

Günther.
 Gwynne.
 Hall.
 Harris.
 Hart.
 Heaney.
 Heldt.
 Henricus (2).
 Henriques.
 Hogg.
 Howell.
 Huggins (2).
 Hunter (2).
 Isaac.
 Jansen.
 Jennings.
 Johnson (5).
 Judge.
 Langford.
 Lavocat.
 Lazaro (2).
 Lowe.
 Luxa.
 Mackenzie.
 McKertish.
 Martin (2).
 Morris.
 Murray (2).

Newman.
 Pascal.
 Paul.
 Peazold.
 Pereira (3).
 Peters.
 Philbert.
 Powell.
 Preston.
 Renshaw.
 Rigley.
 Rivett.
 Roberts.
 Rodgers.
 Rose.
 Rowland (2).
 Rozario (3).
 Rozaro.
 Ryan (2).

Jacobs.
 Joel.
 Joseph.

La Grange.
 Lopez.

Macarthy.
 Macedo.
 Mark.
 Manoel (2).
 Marquise.
 Mendonca (3).
 Mullen.
 Noronha.

Pereira (3).
 Phillips.
 Pinto (2).
 Powell.
 Quental.
 Rodriques (4).
 Rozario (14).

Schooner.
Smith.
Spires.
Stuart (2).
Sturt.
Tanner.
Truss.

Salisbury.
Saldanha.

Wain.
Willer (2).
Wood.
Xavier.

Van Spall (2).
Van Span.
Varid.
Woolger.

Xavier (2).

Though Portuguese names persist at the present day, it does not follow of necessity that their owners have any Portuguese blood in their veins, for some are merely descendants of Native converts to Christianity, or of household slaves of Portuguese officers. "In Malabar," writes the Census Commissioner, 1881, there is a section of Europeanized Native Christians—Goa Roman Catholics—some of whom have adopted European dress and customs; and these may have been returned in 1871 as Eurasians; and in all districts the popular interpretation of the word "Eurasian" is very liberal. There are many Pariahs and Native Christians, who have adopted a travesty of European clothes, and who would return themselves as Eurasians, if allowed to do so." The division between Native Christians and people of mixed race is, as I have already pointed out, very shadowy in Malabar. Considerable care had, therefore, to be taken in accepting or rejecting some of those who, anxious to secure the modest fee which was offered in return for the loan of their bodies, appeared before me in the rôle of Eurasians. All doubtful cases were rejected, and due attention was paid to the various points—colour, character of nose, type of face, breadth of head, manner of speech, baldness and grey hairs at an early age, etc.—by which one accustomed to close observation of Natives and Eurasians can distinguish racial admixture.

Though the terms are, according to my definition (page 69) synonymous and interchangeable, a social distinction is made at Calicut between Eurasians and East Indians. With a view to clearing up the grounds on which this distinction is based, my interpreter was called on to submit a note on the subject, which eventually arrived, couched in

language worthy of "Mark Twain." I, therefore, reproduce it in the original Anglo-Indian.

"Eurasians are classified to those who stand second in the list of Europeans and those born in any part of India, and who are the Pedigree of European descendants, being born of father European and mother East Indian, and notwithstanding those who can prove themselves as really good Indian descendants such as mother and father of the same sex, therefore these are called Eurasians.

"East Indians are those offsprings of Christians of the East, and they atimes gather the offsprings of Eurasians to the entering their marriage to the East Indian females into the East Indian community, thereby they are called East Indians.

"Native Christians are those of Hindu nations converted into Christians by their embracing the poles of Christianity. All Hindus thereby converted and made Christians by a second Baptism are called Native Christians.

"Coaster.—They are alluded to those who belong to the Coast, and who come from a country that has a Sea Coast into that country that has not got a Sea Coast is therefore called a Coaster. A very rude word."

The distinction between Eurasian and East Indian is, as a matter of fact, a very artificial one, and the two types merge imperceptibly one into the other, separated by no sharp line of demarcation. Speaking in general terms, it may be said that the Eurasians are of greater stature, and possess skins of lighter hue than the East Indians, who, as the result of intermarriage with Native Christian women, have reverted in the direction of the Native type.

There are, in North Malabar, many individuals posing as pure-bred Natives, whose fathers were Europeans; but, for caste reasons, their white paternity is lost sight of. Many of them possess very pale skins, and some are in prosperous circumstances. Writing concerning the Tiyan community, Mr. Logan says: ¹¹ "The women are not as a rule excommunicated if they live with Europeans, and the consequence is that there has been among them a large admixture of European blood, and the caste itself has been materially raised in the social scale. In appearance some of the women are almost as fair as Europeans." In recent times the Tiyans of North Malabar have separated into two

¹¹ 'Manual of Malabar'.

factions, which hold different views with reference to the cohabitation of Tiyan women with Europeans, the one being in favour of it, the other against it. On this point the report of the Malabar Marriage Commission, 1894, states "that in the early days of British rule, the Tiyan women incurred no social disgrace by consorting with Europeans, and, up to the last generation, if the Sudra girl could boast of her Brahmin lover, the Tiyan girl could show more substantial benefits from her alliance with a white man of the ruling race. Happily the progress of education, and the growth of a wholesome public opinion, have made shameful the position of a European's concubine; and both races have thus been saved from a mode of life equally demoralizing to each."

The Eurasians examined by me at Calicut, nearly all of whom were Roman Catholics, were earning a modest livelihood, ranging from Rs. 35 to Rs. 12 per mensem, in the following capacities:—

Bandsman.	Municipal inspector.
Boot-maker.	Musician.
Bugler.	Petition-writer.
Carpenter.	Police constable.
Clerk.	Railway guard.
Coffee-estate writer.	Schoolmaster.
Compositor.	Tailor.
Copyist.	Tin-smith.
Mechanic.	Weaver.

No less than 39, out of the 96 cases which came before me for investigation, were tailors. Tailoring is, therefore, to the poor Eurasians of Calicut what "fitting" is to those of Madras.

As in Madras, so in Malabar, tattooing is very prevalent among the male members of the Eurasian community, and the devices are characterised by a predominance of religious emblems and snakes. The following patterns are recorded in my notes:—

Bangle on wrist.	Cross.
Boat.	Cross and crown.
Bird (the Holy Ghost).	Cross and heart.
Chalice.	Cross and I.N.R.I.
Christ crucified.	Crossed swords.
Cobra.	Fish.
Conventional and geomet-	Flags.
rical designs (done by	Flower.
Koravar women).	Flower with leaves.

Initials.
Ladder.
Sacred heart.
Snake encircling forearm.

SNAKE COILING ROUND FOREARM.
Solomon's seal.
Steam boat.

During the course of my visit to Calicut, a resident correspondent of the 'Madras Mail' expressed his fear that, when I came to strike my averages of Calicut "East Indians," I should find the results very poor, as I had measured specimens drawn from the lower section of the community, represented by artisans living on poor food, and amidst surroundings that are not conducive to physical development. This fear was indeed justified, and my remarks on early marriage and physique of the poor Eurasians of Madras apply with equal, if not greater force to those of Malabar. Repetition is unnecessary, and it will suffice to let the figures in table xxv speak for themselves.

Comparing the physique of the younger members of the Calicut "Eurasian and East Indian" community at an age when they would be eligible as recruits, with that of the Eurasians of Madras and sepoy of the same age, the results work out as follows, and demonstrate that a very small proportion of the two former possess the physique necessary to successfully withstand the hardships enforced by active service:—

WEIGHT, LB.

—					70-80	80-90	90-100	100-110	110-120	120-130	130-140	140-150	150-160
Sepoys	...	...	...	...	...	...	1	4	11	19	9	4	2
Eurasians, Madras	...	...	...	...	...	6	9	12	13	4	5	1	...
„ Calicut	...	...	...	...	3	3	9	15	16	3	1	...	...

CHEST, CM.

—					60-70	70-80	80-90	90-100
Sepoys	...	...	...	...	...	5	42	3
Eurasians, Madras	...	...	...	...	3	33	14	...
„ Calicut	...	...	...	...	1	39	10	...

SHOULDERS, CM.

—			33- 37	37- 38	38- 39	39- 40	40- 41	41- 42	42- 43	43- 44	44- 45	45- 46
Sepoys	...	...	...	...	4	5	6	15	12	4	2	2
Eurasians, Madras	...	...	9	10	8	9	10	2	...	2	...	...
„ Calicut	..	..	12	8	8	17	5	...	...	...	...	...

Putting these figures, as before, in terms of percentages we obtain the following results :—

WEIGHT.					Below 120 LB.	Above 120 LB.
Sepoys	..	..	..	..	32	68
Eurasians, Madras	..	..	..	..	80	20
„ Calicut	..	..	..	..	92	8
CHEST.					Below 80 CM.	Above 80 CM.
Sepoys	..	..	..	..	10	90
Eurasians, Madras	..	..	..	..	72	28
Calicut	..	..	..	..	80	20
SHOULDERS.					Below 41 CM.	Above 41 CM.
Sepoys	..	..	..	..	30	70
Eurasians, Madras	..	..	..	..	92	8
„ Calicut	..	..	..	..	100	0

During a recent visit to Ootacamund, I was, through the courtesy of the Principal, the Rev. A. W. Atkinson, enabled to examine the physique of the elder boys at the Lawrence Asylum, the object of which is “to provide for children of European and East Indian (i.e., Eurasian) officers and soldiers of Her Majesty’s Army (British and Native), and of Europeans and East Indians in the Medical Service, Military and Civil, who are serving, or have served within the limits of the Presidency of Madras, a refuge from the debilitating effects of a tropical climate, and from the serious drawbacks to the well-being of children incidental to a barrack life; to afford for them a plain, practical, and religious education; and to train them for employment in different trades, pursuits, and industries.” In his last two annual reports the Principal has emphasised the fact that application for the admission of the children of British

soldiers, for whom solely this and similar institutions were originally founded, have almost ceased. "There is," he says (6th September, 1897), "not one child of a British soldier eligible for admission on the register to-day-a situation unprecedented in the history of the Asylum. In view then of this lapse of applications for the admission of the kind of children into our Asylum, for whom it primarily exists, ought not the plan to be adopted, as speedily as may be, of drafting such children from Orphanages, and such like Institutions on the enervating plains, and placing them with us here?" In the year 1896-97 four boys enlisted in European regiments, and one boy in a Native regiment. "Compared with the previous year," the Principal reports, "enlistments in European regiments were few, as boys of pure European parentage only can be entertained."

As the result of examination of 32 Eurasian boys at the Lawrence Asylum, between the ages of 13 and 17, whose measurements are given in detail in table xxvi, I am able to testify with very great pleasure to the excellence of their physical condition. A good climate, with a mean annual temperature of 58°, good food, and physical training, have produced, in fact, a set of boys well-nourished and muscular, with good chests, shoulders, and body weight, who afford a striking contrast to the lads belonging to the same class in the plains, brought up amid the unwholesome environment of an enervating climate. More eloquent than the columns of figures in table xxvi, which appeal only to those accustomed to anthropometric methods, was examination of the lads themselves as they stood stripped for investigation. But I may, for the purpose of comparison, cite the physical records of a few cases, both pure European and Eurasian, in evidence that, amid wholesome surroundings, the Eurasian (especially of British paternity) is capable of development into a being of good physique, such as is required for the hardships of Military Service:

		Age.	Weight.	Height.	Chest.	Shoulders.
European	..	16-17	135	169·8	84	35·5
"	..	15-16	110	161·8	79·5	34·7
"	..	15-16	100	153·4	81	36·3
"	..	14-15	135	167·6	84	36·6
Eurasian	..	16-17	105	157·4	81	35·3
"	..	16-17	116	162·6	83	39·7
"	..	15-16	102	149·5	80	36·3
"	..	14-15	108	153·6	80	35·2
"	..	13-14	115	167	79·6	37·1

TABLE XVII.
SUMMARY OF MEASUREMENTS.
EURASIANS.

	Max.	Min.	Average.	Range.
Weight	168	79	111.5	89
Height	183.8	153	166.6	30.8
Height, sitting	95.6	78.6	86.6	17
Height, kneeling	136.6	113	123.7	23.6
Height to gladiolus	136.4	110	122.7	26.4
Span of arms	196.8	153.4	172.7	43.4
Chest	93	67	79.1	26
Middle finger to patella	20.4	6.2	12.5	14.2
Shoulders	44.6	34.3	39.2	10.3
Cubit	52.9	40.3	46.1	12.6
Hand, length	20.2	15.5	17.7	4.7
Hand, breadth	8.7	6.5	7.5	2.2
Hips	30.3	21.4	25.4	8.9
Foot, length	29.5	22.4	25.7	7.1
Foot, breadth	10	7.1	8.3	2.9
Cephalic length	20.2	16.8	18.6	3.4
Cephalic breadth	15.6	12.8	14.1	2.8
Cephalic index	87.2	69.5	76	17.7
Bignoniac	12	9	10.1	3
Biszygomatio	14.4	11.8	13	2.6
Maxillo-szygomatio index	85.3	69.9	77.5	15.4
Nasal height	6.1	4.4	5.1	1.7
Nasal breadth	4.2	2.7	3.5	1.5
Nasal index	91.1	53.7	69.5	37.4

Note.—The results are based on the measurement of 130 subjects.

In this and the following tables, the weight is recorded in pounds; the measurements are in centimetres.

TABLE XVIII.
EURASIANS AND SEPOYS.
AVERAGES.

							Eurasians.	Sepoys.
Age	...	...	...	...	...	...	28-29	24-25
Weight	...	...	...	...	...	...	111·5 lbs.	127·5 lbs.
Height	...	...	...	...	...	...	166·6 cm.	168·2 cm.
Chest	...	...	...	...	...	...	79·1 cm.	84·7 cm.
Shoulders	...	...	...	...	...	...	39·2 cm.	41·5 cm.
Dynamometer	...	...	...	...	...	...	65 lbs.	80 lbs.

TABLE XIX.
SEPOYS AND EURASIANS, AGED 18-25.

	Maximum.		Minimum.		Average.		Mean above.		Mean below.	
	Sepoys.	Eur- asians.	Sepoys.	Eur- asians.	Sepoys.	Eur- asians.	Sepoys.	Eur- asians.	Sepoys.	Eur- asians.
Weight	160	150	98	80	125	108	135	122	115	95
Height	178	181	160.6	153.8	167.9	164.8	172.1	170.8	164.3	159
Chest	94	87.5	75.5	68	84	77.6	87.3	82	81	74
Shoulders	45.5	43.9	37.7	33.8	41.6	38.7	42.8	40.5	40	37.1
Dynamometer	113	90	66	50	80	64	87.6	72.4	73.6	56.6

TABLE XX.
DETAILS OF MEASUREMENTS.
EURASIANS, AGED 19—25.

Age.	Weight.	Height.	Chest.	Shoulders.	Dynamometer.	
24	112	167·4	85	40·4	...	Fitter.
22	105	160·4	83	40	...	Fitter.
24	97	153·8	78	37·5	...	Boiler-smith.
21	127	180	86·5	41·5	...	Blacksmith.
21	189	164·8	87	42·1	...	Ticket-collector.
22	135	181	82	40·9	...	Clerk.
23	116	169·6	78·7	38·6	...	Electric tram driver.
21	119	179	79·7	38·7	...	Fitter.
24	110	162	78	39·4	...	Clerk.
23	108	170	76	39·4	...	Carpenter.
23	94	154·6	74·5	36·8	...	Unemployed.
23	90	156·8	72·5	37·2	...	Carpenter.
23	150	180·6	87·5	43·9	...	Electric tram driver.
24	103	167	75·5	38·6	...	Compositor.
21	107	167·2	77	37·2	...	Hammerer.
22	111	170·6	75	37·3	...	Turner.
21	95	160·8	75·5	36·7	...	Mechanic.
23	111	166·8	77	39·5	...	Fitter.
21	115	168·4	83·5	40	...	Fireman.
23	123	162·2	82	40·9	...	Fitter.
24	106	166·8	75·5	40·2	...	Fitter.
24	116	171	75	38·2	...	Fitter.
22	127	169·2	81	40	...	Fireman.
23	109	165·4	77·5	38·5	...	Turner.
24	115	179·4	82·5	41·2	...	Fitter.

TABLE XX—*continued*.

DETAILS OF MEASUREMENTS.

EURASIANS, AGED 19–25.

Age.	Weight.	Height.	Chest.	Shoulders.	Dynamometer.	
24	83	154·7	72	36·5	...	Chemist's assistant.
22	132	171·2	87	40·1	90	Turner.
22	101	165·8	74·5	39·1	70	Clerk.
22	123	160·2	82	40·7	71	Rivetters.
21	103	169·2	76·5	39·1	68	Joiner.
21	137	175·2	80	39·9	60	Fitter.
21	92	154·5	73	33·8	50	Fitter.
24	101	166	79	37·6	69	Railway guard.
19	106	160	78	38·5	67	Turner.
20	96	163·8	72	38·5	56	Cleaner, railway.
20	113	167·2	76·5	39·6	74	Carpenter.
23	136	171·4	84·5	43·3	90	Cobler.
20	87	159·6	76·5	37·7	57	Fitter.
24	80	154·4	68	35·1	56	Clerk.
20	102	163·8	75·5	38·7	55	Fitter.
22	88	158·8	75·5	36·4	62	Printer.
23	94	155·8	75·5	37·6	64	Printer.
19	100	161·4	74	37·5	63	Fitter.
24	118	169	79	39·5	66	Fitter.
19	98	162·6	72	35·6	50	Fitter.
19	95	159·6	72·5	37·1	60	Fitter.
19	80	157·8	69·5	35·9	54	Fitter.
19	111	161·4	74	37	65	Watch-repairer.
20	118	167	79	39·7	66	Fitter.
19	82	157	69	34·8	46	Blacksmith.

TABLE XXI.
DETAILS OF MEASUREMENTS.
SEPOYS, AGED 18—25.

Age.	Weight.	Height.	Chest.	Shoulders.	Dynamo- meter.
23	131	174	87	45·3	78
24	143	170·4	91·5	42·8	113
20	133	169·2	85	42·3	81
19	126	161·8	80·5	39	71
20	118	160·6	82	41·2	85
19	115	167·1	80	40·7	89
22	131	168·6	82	43·7	81
22	125	167·6	82	41·8	86
19	128	167·4	85	41·7	78
24	122	168·3	84·3	42	69
21	148	171·8	89·5	42·4	81
21	125	165·6	84	42·4	79
18	137	174	88	43·7	83
19	123	173·2	80·5	41·4	73
23	160	175·9	94	41·3	78
23	157	178	90	43·7	88
20	131	175·2	84	42·7	84
23	128	163	85·5	41·3	92
22	139	172·4	89·5	43·4	81
19	124	172	80·5	38·2	80
22	113	161	83	40·2	76
23	129	161·8	84·5	41·8	66
21	141	172·6	88	45·5	97
19	108	162	81	39·5	93
20	123	166	83	40·2	80

TABLE XXI—*continued.*

DETAILS OF MEASUREMENTS.

SEPOYS, AGED 18—25.

Age.	Weight.	Height.	Chest.	Shoulders.	Dynamometer.
21	98	166	76	39·6	67
22	127	169	82	39·1	86
20	116	163·2	80	41·1	69
20	129	166·9	89	42·4	77
20	145	177·8	86·5	42·3	75
18	107	166·8	79·5	38·2	66
22	109	160·7	80·5	38·7	84
21	111	161·3	79·5	40·1	75
24	112	165	80·5	39	82
21	118	162	83	40·7	71
19	114	170·8	81·5	41·6	73
18	122	161·2	86	42·2	78
18	120	163·2	83·5	41·8	72
21	127	167	86	41·8	77
22	116	170·4	83	42	82
20	134	173·2	98	42	86
18	113	163·6	79	41·6	76
18	121	167·4	82·5	41·5	77
22	100	165·4	75·5	37·7	75
23	135	169·4	85	41·9	85
23	128	170	88	44	75
24	122	164·6	85·5	42·9	70
19	128	170·2	86	40·8	86
22	114	169·2	83	41·7	73
22	130	172	88	44·8	102

TABLE XXII.
LIST OF SO-CALLED EUROPEANS TREATED IN THE LEPROS HOSPITAL FROM 1890-97.

Age.	Race.	Occupation.	Place of birth.	How long ill.	Cause.	Date of		
						Admission.	Discharge.	Death.
43	European	Railway Guard.	Australia	15 years	Venereal	Y. M. D. 13 9 84	Y. M. D. ...	Y. M. D. 28 3 90
25	Irish	Nil	Madras	10 years	Unknown	13 9 89	..	12 7 91
23	European	Interpreter	Tanjore	9 months	Do.	12 2 91	13 2 92	...
23	Do.	Fitter	Buxar	6 years	Do.	21 2 91	3 2 92	...
34	Do.	Nil	Nagapatam	15 years	Do.	17 3 92	11 3 93	...
27	Do.	Accountant	Shevaroy Hills.	6 months	Do.	14 6 92	...	30 7 96
31	French	Contractor	Pondicherry	15 years	Do.	9 3 93	16 4 93	...
42	European	Supervisor, P.W.D.	Bangalore	17 years	Venereal	12 10 94	...	...
20	Do.	Nil	Tinnevely	12 years	Unknown	28 3 95	...	14 2 96
27	Do.	Sailor	Cardiff	2½ years	Do.	24 6 97	...	...
32	Do.	Soldier	Burma	6 years	Do.	26 10 97	...	11 12 97

TABLE XXIII.

STATISTICS SHOWING THE NUMBER OF CASES OF LEPROSY TREATED DURING THE FIVE YEARS 1893-97.

	Remained.			Admitted.			Total.			Discharged.			Died.			Remaining.		
	Men.	Women.	Children.	Men.	Women.	Children.	Men.	Women.	Children.	Men.	Women.	Children.	Men.	Women.	Children.	Men.	Women.	Children.
EUROPEANS.																		
1893	1	...	...	1	...	...	2	...	...	1	...	...	...	...	...	1	...	...
1894	1	...	...	1	...	...	2	...	...	...	...	...	...	...	...	2	...	...
1895	2	...	...	1	...	...	3	...	...	...	...	...	...	...	...	3	...	...
1896	3	...	...	...	...	...	3	...	...	...	...	...	2	...	...	1	...	...
1897	1	...	...	2	...	...	3	...	...	...	...	...	1	...	...	2	...	...
EURASIANS.																		
1893	22	11	...	7	3	2	29	14	2	5	6	2	4	2	...	20	6	...
1894	20	6	...	7	8	3	27	14	3	6	6	2	4	1	...	17	9	1
1895	17	9	1	8	3	2	25	12	3	9	5	2	...	...	1	16	7	...
1896	16	7	...	16	6	...	32	13	...	13	7	...	...	1	...	20	5	...
1897	20	5	...	6	4	1	26	9	1	2	3	1	3	1	...	21	5	...

TABLE XXIV.
STATEMENT SHOWING THE NUMBER OF LUNATICS TREATED DURING THE FIVE YEARS 1893-97.

	Remained.		Admitted.		Total.		Discharged.		Died.		Remaining.	
	Men.	Women.	Men.	Women.	Men.	Women.	Men.	Women.	Men.	Women.	Men.	Women.
EURASIANS.												
1893	31	30	6	7	37	37	2	5	2	1	33	31
1894	33	31	8	6	41	37	3	5	1	1	37	31
1895	37	31	10	6	47	37	4	3	3	3	40	31
1896	40	31	2	4	42	35	5	4	...	1	37	30
1897	37	30	3	3	40	33	2	1	1	...	37	32
NATIVES.												
1893	293	76	110	25	392	101	54	19	82	14	306	68
1894	306	68	104	28	410	96	55	13	41	12	314	71
1895	314	71	113	18	427	89	62	12	76	10	290	67
1896	290	67	82	17	372	84	75	13	27	9	270	62
1897	270	62	84	18	354	80	56	6	22	14	276	60
EUROPEANS.												
1893	12	3	15	4	27	9	13	2	1	...	13	7
1894	13	7	19	1	32	8	18	1	...	...	14	7
1895	14	7	11	4	25	11	12	2	1	2	12	7
1896	12	7	5	...	17	7	3	1	1	...	13	6
1897	13	6	14	1	27	7	13	1	...	...	14	6

TABLE XXV.
COMPARISON OF MEASUREMENTS.
EURASIANS, MADRAS AND CALCUT.

	Madras.	Calicut.
Weight	111.5	109
Height	166.6	163.5
Span of arms	172.7	171
Chest	79.1	77.7
Shoulders	39.2	38.7
Hand, breadth	7.5	7.4
Hips	25.4	25.1
Foot, breadth	8.3	8.3
Cephalic length	13.6	18.6
„ breadth	14.1	14
„ index	76	75.4
Bigoniac	10.1	9.9
Bizygomatic	13	12.8
Maxillo-zygomatic index	77.5	77.5
Nasal height	5.1	4.9
„ breadth	3.5	3.4
„ index	69.5	69.3
Dynamometer	65	63

The weights were taken in clothes with boots.

TABLE XXVI.

SUMMARY OF MEASUREMENTS.

EURASIAN BOYS, LAWRENCE ASYLUM.

Age.	Weight.	Height.	Chest.	Shoulders.	Hand, breadth.	Cephalic length.	Cephalic breadth.	Cephalic index.	Dynamometer.
16-17	105	157.4	81	35.3	7.4	18.9	14.2	75.1	50
16-17	116	162.6	83	39.7	7.5	18.2	13.4	73.6	59
16-17	85	145.2	67	33	7.2	18.9	14.2	75.1	43
16-16	118	165.6	79.5	37.4	7.3	17.4	15	86.2	64
15-16	96	155.4	74	33.4	6.8	18	14.8	82.2	49
15-16	97	153.2	73	35	7.3	17.5	14.8	84.6	50
15-16	102	149.5	80	36.3	7.1	17.8	14.6	82	51
15-16	91	149.4	73	35.4	6.8	17.8	14.6	82	42
15-16	104	152.6	76	36	7.4	18.4	13.6	73.9	63
15-16	87	152.4	71.5	35.4	7.1	18.1	14.2	78.5	49
15-16	97	153.6	73.5	35.3	7.2	17.1	14.4	84.2	55
15-16	86	148.7	70.5	32.3	7.4	17.6	13.5	76.4	60
15-16	85	150.2	73.5	32.3	6.9	17.8	13.6	76.4	47
15-16	90	151.2	73.5	32.9	6.4	16.6	14.4	86.7	41
15-16	92	151	70	34.7	7.3	16.9	13.6	80.5	55
15-16	92	144.8	73	33.5	6.9	18	13.4	74.4	44
15-16	97	149.8	72.5	34.1	7	19.5	15.2	76.4	48
15-16	98	150.4	77.5	35.3	7.2	17.2	13.6	79.1	51
15-16	80	140.6	69	30.5	6.7	17.4	13.9	79.9	39
15-16	85	148.9	67.5	33	6.5	17.8	14.2	79.8	38

TABLE XXVI—*continued*.

SUMMARY OF MEASUREMENTS.

EURASIAN BOYS, LAWRENCE ASYLUM.

Age.	Weight.	Height.	Chest.	Shoulders.	Hand, breadth.	Cephalic length.	Cephalic breadth.	Cephalic index.	Dynamometer.
14-15	108	153·6	80	35·2	7·6	16·8	14·2	85·7	67
14-15	93	147·7	76	34·5	7·7	17·6	14	79·5	50
14-15	85	145·6	68·7	32	6·5	18·6	14	75·3	38
14-15	87	150·2	71·5	31·6	6·6	17·8	13·8	77·5	52
14-15	88	148·2	69·5	31·5	6·8	17·6	14	79·5	52
14-15	97	148·7	75	33·2	7·3	18	13·8	76·7	59
14-15	92	148·2	75·3	34·6	6·5	18·2	14·7	80·8	48
14-15	89	146·5	71·5	33·9	7	18·8	13·8	73·4	47
14-15	77	147·6	68	32·8	6·3	18·2	14·2	78	39
14-15	86	143·2	72·5	32·9	6·8	18·5	14·2	76·8	42
14-15	87	146·6	69·5	33·3	7·1	18	14·2	78·9	50
13-14	115	167	79·6	37·1	7·2	18·2	15·8	86·8	57

NOTE ON TATTOOING.

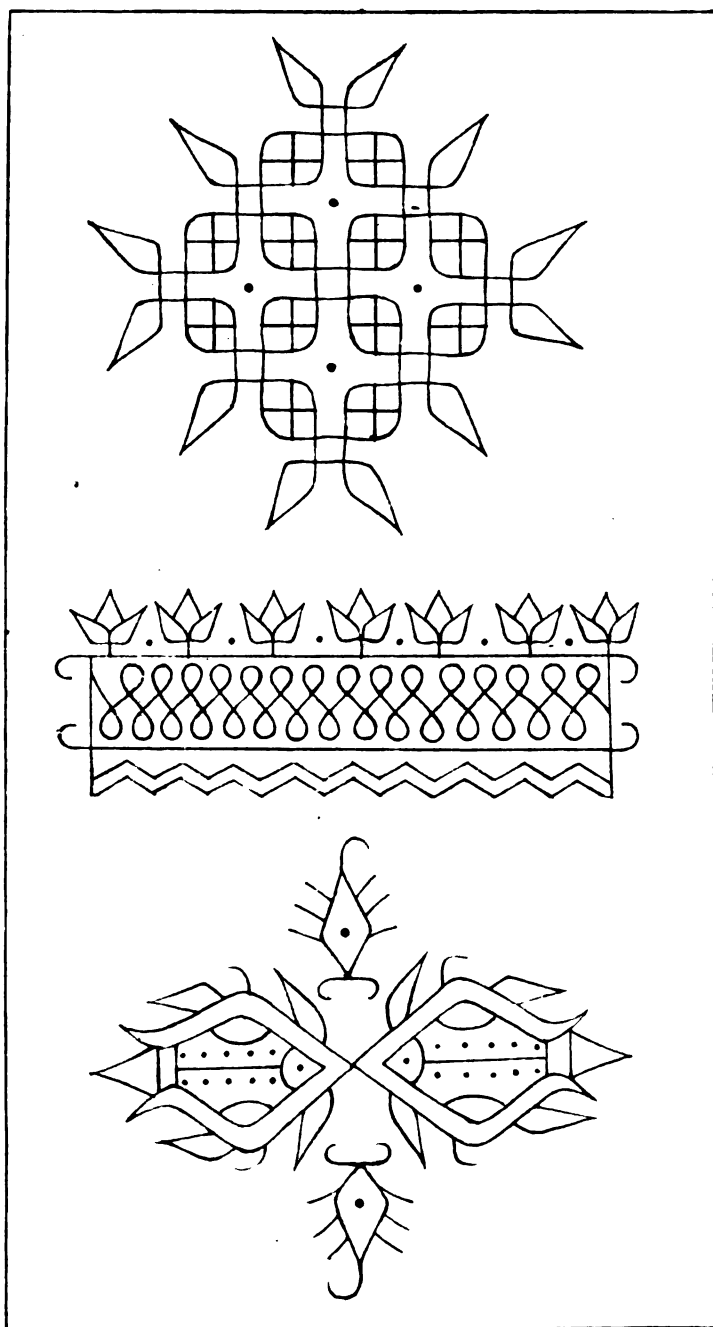
IN a paper on tattooing, read at the Anthropological Institute in January, 1888, Miss Buckland refers to the practice of tattooing among the Nāgas of Assam, and to the tattooing of breeches, reaching from the waist to the knee, with which the male Burman is adorned. But, in the map illustrating the paper, peninsular India, south of 20°, is left a perfect and absolute blank. And, in the discussion which followed the reading of the paper, Lieutenant-Colonel Kincaird, recognising this remarkable hiatus, remarked that "his observation led him to believe that this custom is wide-spread on the arms and legs among the women of the lower castes of the Tamil, etc., races in the south and south-east of the peninsula. Among the ethnically allied so-called aboriginal tribes inhabiting the Vindyan and Sathpura hill slopes it is also prevalent, even among the women of the lower orders of Muhammadans, whose forefathers were probably low-caste Hindus, before being converted by force. He had observed the same tattoo markings on arms and legs. There is very generally a dot on the chin, and similar dots on the cheek or temple very sparingly placed, forming perhaps, in their ideas, beauty spots similar to the patches of our ladies in former years."

The prevalence of tattooing, frequently with very elaborate devices, among the male sex in the Eurasian community has been dealt with in the preceding chapter. And, in Bulletin No. IV, 1896, I have referred to, and illustrated the primitive patterns of dots and circles on the breasts, arms, hands, legs, and feet of the Toda women of the Nilgiris, and the more advanced type of lines, dots, and circles, sometimes combined into a simple ornamental pattern, in vogue among the Kota women of the same hill-range.

The following note on the practice of tattooing, as carried out in the city of Madras, is based on information extracted in the course of interviews with professional female tattooers, of whom the first arrived in a state of maudling

intoxication. These women belong to the class of Koravas or Yerukalas, "a vagrant tribe found throughout the Madras Presidency. They wander about the country in gangs, selling baskets, carrying salt, telling fortunes, and pilfering and robbing whenever an opportunity occurs. As house-breakers they are especially expert, and burglary is their favourite crime." (Census report, 1881.) The men are also employed in hunting, bird-snaring, and as actors of native plays, which they perform on the road side. Sometimes they masquerade as mendicants, and go about, beating a drum, and begging from house to house in the bazár. The female tattooers leave Madras during the harvest season, and pay professional visits to the neighbouring districts, travelling as far as Pondicherry in the south, and Cuddapah in the north. By these women Brāhmans, 'Sudras' of all classes, Pariahs, and Tamil-speaking Muhammadans (Labbais) are operated on. The patterns range from a dot or straight line to complex geometrical or conventional designs (Plates xxiii-xxiv). Figures of wild animals are not met with, but scorpions, birds, fishes, flowers, and the Vaishnava sect mark, are common. So too, as among the Eurasians, are the initials or name (in Tamil characters) upon the fore-arm. Sometimes Hindu males are tattooed, as an amusement, when boys, or, in some cases among the lower classes, *e.g.*, Pariahs, when grown up. But tattooing with elaborate devices is essentially confined to the female sex. The parts of the body selected for the performance of the operation in its ornamental aspect are the fore-arm, fore-leg, fore-head, cheeks, and chin. But, in some instances, in case of muscular pain or other disorder, the operation is performed as a remedial agent over the shoulder-joint, or on the thigh, upper arm, or other parts of the body. A legend runs to the effect that, many years ago, a Pariah woman wished her upper arms and breast to be tattooed in the form of a bodice. The operation was successfully performed until the region of the heart was reached, and then a vulnerable part was punctured by the needles with the result that the woman died. Whence has arisen a superstitious objection to tattooing of the breasts.

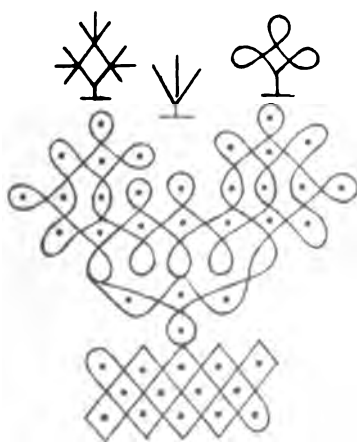
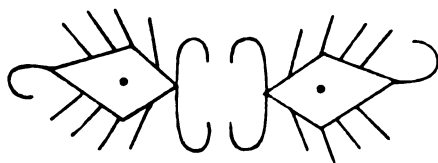
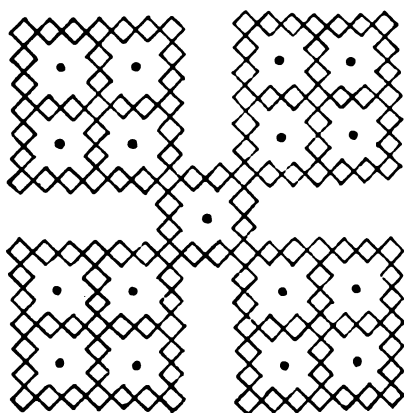
The Tamil equivalent of tattooing is pachai-kuthu-kirathu (= pricking with green). The "marking ink" is prepared in the following manner: Turmeric (kappa manja) powder and agathikeerai (leaves of *Sesbania*



grandiflora) are rubbed together in a mortar, or on a grinding stone. The mixture is spread on a thin cloth, and rolled up in the form of a wick, which is placed in an open lamp charged with castor-oil. The wick is lighted, and the lamp covered with a new earthen pot, on the inside of which the lamp-black is deposited. This is scraped off and mixed with human milk or water. Instead of *agathi-keerai*, *arumpilloo* (green parts of *Cynodon Dactylon*), or *karisinagoni* (green parts of *Eclipta alba*) may be used in the preparation of the wick. As a pricking instrument, three or four sewing needles are fastened together with thread. In the performance of the operation, the selected pattern is first traced on the skin with a thin stick dipped in the prepared ink, which is pricked in with the needles. The part is then washed with cold water, and a coat of ink rubbed over the surface. To allay the pain, oil is applied, and a small quantity of turmeric powder is rubbed in, to brighten the colour and prevent swelling. The Korava women, being illiterate, are unable to tattoo initials or names unless they are first drawn for them. They are able to execute the complicated patterns, with which they are, from long practice, familiar, with considerable dexterity, and will tattoo any pattern which is new to them, provided that it is first drawn. The woman who described the tattooing process to me traced out very elaborate patterns, with great rapidity, with the blunt stick which she was accustomed to use, but could make no way at all with a pencil. The Burmese patterns are far more artistic, varied, and complicated than those executed by the Koravas. With these patterns sepoys, and Tamil coolies who emigrate to Burma, are freely tattooed by highly skilled Burmese tattooers; and some of these patterns are now being copied by the Madras tattooers. The tattooer's fee is said to range from a quarter-anna for a dot or line to twelve-annas for a complex design. And in up-country villages payment appears to be made in kind, and a present of rice to be the usual remuneration.

The following information was supplied by a Tamil Native, with a European ballet girl tattooed on his upper arm, who was engaged in varnishing cases in one of the Museum galleries: "Some years ago I went to Ceylon with a Native Theatrical Company. While in Colombo I made the acquaintance of a Sinhalese who was a professional tattooer. He had an album of pictures for tattooing. I

was attracted by their beauty, and subjected myself to the operation. It was an easy and painless operation as compared with that of the Madras tattooer. The Sinhalese man had the needles tied together in different ways, *e.g.*, for pricking straight lines five or six needles are tied together in a row; for pricking curves the needles are arranged in a curve. The Madras tattooer has the needles tied together in a bundle, and the operation, as performed with them, is painful, and sometimes followed by swelling and ulceration." Asked whether he was glad he had been tattooed, the man said, "I am very sorry I had it done, for, when I got married, I was ashamed of it, and kept it hidden by my cloth."



MALAGASY-NIAS-DRAVIDIANS.

IN the course of an article entitled 'Malgaches-Nias-Dravidians,'* M. Zaborowski makes copious reference to the results of my researches among the Irulas, Paniyans, and Kurumbas.† Quoting Modigliani, he says: "I have seen in India, on the Malabar Coast, and especially at Beypur, Calicut, and the surrounding country, various natives of *Malaisoid* type, whose features struck me owing to their close resemblance to those of the Nias. Among the Tiyans, of low caste, this resemblance is great (twisted legs, lobes of the ears widely dilated, the shape of the female breasts, and long arms); but those, in whom the resemblance struck me most, were a Kakkai (crow-eating) Kurumba man and woman, mendicants met in the vicinity of Calicut. It was on my return from Nias, and the impression which they produced was a lively one. . . . I do not wish to affirm that the Nias are descended from the Tiyans, or from the Kurumbas; but, from the description of their physical characters, their customs, and their legends, results the possibility of a common origin between Nias and Kurumbas.

Continuing the line of argument, M. Zaborowski writes as follows: "A very important work, which 'M. Edouard' Thurston has just published, allows me to bring this assimilation still closer. The portraits of Irulas, Paniyans, Kurumbas, and a Tamil man, which this author gives with his notes, are sufficient by themselves to clear up many doubts. Mr. Thurston has measured only Dravidians, so that he furnishes us with terms of comparison taken in India itself. A hierarchic classification of all these Indian people is made by the consideration of the nasal index alone. The Irulas, Paniyans, and Kurumbas are shown, by the table of nasal indices, to be specially worthy of attention from the point of view which concerns us. Their extreme platyrhiny is due, as in the Moïs, to shortness of height rather than to excessive breadth."

* Bull. Soc. d' Anthropol., Fasc., 2, 1897.

† Madras Museum Bull., Vol. II, No. 1, 1897.

After drawing attention to the profusion of copper rings, and other ornaments which the Irula and Paniyan women wear, and the resemblance between the clothing of Irulas and Malagasy of Madagascar, M. Zaborowski continues : " In studying the customs of our Indo-Chinese wild tribes, I have naturally been struck with the similarity of their taste for interminable rolls of copper, which they wear on the fore-arm, the profusion of bracelets, and especially with the habit of dilating the lobes of the ears, and suspending therein rings of copper, with the tastes and practices of the Dayaks of Borneo. Now I find the same tastes, and almost the same practices among the Dravidian tribes of Southern India. Irulas, Paniyans, and doubtless the Kurumbas, cover themselves with bracelets and rings of copper, and insert in the lobes of the ears light discs, rolls of cajan, doubtless to suspend therein ear-rings, and even rings of copper, which stretch them. This last custom is very widespread at Nias, and it is met with in Madagascar. Its point of departure, its origin, is then not in Borneo, but in Southern India. In addition to their striking physical characters, Irulas, Kurumbas, and Paniyans offer to the careful observer peculiarities of customs which, if not absolutely identical with those of the Moïs, recall no less forcibly their mode of existence, customs, level of culture, moral and social individuality. Close bonds have united them. I do not say that the Nias are Kurumbas, or that the Moïs are Paniyans or Irulas. They are like so much débris of groups disaggregated long ago. They have lived, without communicating one with the other, for perhaps more than a thousand years. And it is undoubtedly more than two thousand years since they were separated, and became subject to the influences of difference in climate and environment. Their separation may even date back to a more remote period. It is, then, marvellous that they present to-day such evident affinities. Traits of custom and character may separate them even under the head of physique. Thus Irulas, Kurumbas, and Paniyans have, as a general rule, the skin of a darker hue than Nias and Moïs, a greater hairy development, and a more Australian type. But the colour of the skin is universally very variable; light skins are met with even among Dravidians. And it must not be forgotten that Malay blood has, for a long time, had a very great influence in Indo-China. So that secondary distinctions cannot make us misinterpret the identity of the primary characters which are preserved in all these groups with remarkable persistence.

It is from India that have proceeded the principal constituent elements of the Nias and Moïs, not to speak of other less well-known groups of Sonda.

As a supplement to my notes on the ornaments worn by Irulas and Paniyans, and as bearing on the subject of dilatation of the ear-lobes referred to by Mr. Zaborowski, I reproduce my notes on the ornaments worn by Cherumans of both sexes at Calicut on the Malabar Coast. The Cherumans are, as I have pointed out elsewhere, a large community of low stature, very dark skinned, with wide nasal index, inhabiting Malabar, where they were formerly agrestic slaves, and now work for the most part as field labourers, and, in the town of Calicut, as grass cutters, &c. With a view to rising in the social scale, many Cherumans are converted to Muhammadanism, and throw in their lot with the Moplahs or Mápillas.

Man, æt. 30. One steel, two brass ear-rings right ear; two brass rings left ear.

Boy, æt. 14-15. Brass ring in each ear.

Man, æt. 30. Three brass rings in each ear; two steel rings and one brass ring left middle finger.

Man, æt. 25. Two brass rings left ear; one brass ring right ear. Three brass rings, and one iron ring right ring finger.

Man, æt. 28. Two brass rings in each ear. One brass, one copper, and five iron rings right little finger. One brass ring with glass ornament left little finger.

Woman, æt. 25. Lobes of both ears widely dilated by rolled leaden ornaments. Brass, and two glass bead necklets. String necklet with flat brass ornaments, the size of a Venetian sequin, with device as in old Travancore gold coins, with two brass cylinders pendent behind, and tassels of red cotton.

Three brass rings on right little finger; two brass rings on left ring finger. One brass, and two steel bangles on left wrist.

Woman, æt. 25. Several bead necklets, and a single necklet of many rows of beads. Brass necklet like preceding, with steel prong and scoop, for removing wax from the ears and picking teeth, tied to one of the necklets. Attached to, and pendent from one necklet, three cajan rolls with symbols and Malayalam inscription to act as a charm to drive away devils.

Three ornamental brass bangles on right fore-arm; two on left fore-arm. Iron bangle on left wrist. Thin brass ring in helix of each ear. Mass (seventy) of thin brass rings (alondôti), with heavy brass ornament (adikyâ) in dilated lobe of each ear.

Woman, æt. 30. Neck and ear-ornaments of same type as preceding, but two brass rings in each helix, and one cajan roll, to drive away cough and fever.

Right hand—

Four brass rings, thumb and middle finger.

Four brass and two copper rings, ring finger.

Left hand—

One copper ring, thumb.

One steel ring, middle finger.

Three copper, and five brass rings, ring finger.

Girl, æt. 12. Ears dilated by small cajan ornaments (gradual dilatation). Necklet with brass ornament with Travancore coin device. Brass ring on right ring finger.

Girl, æt. 13. String round neck to act as a charm in warding off fever. Neck ornament with brass imitation Venetian sequin. Brass bead necklets and ear scoop. Brass and steel bangles on right wrist; brass bangles on left wrist. Three copper, three brass, and two steel rings on right ring finger. Long slit in lobe of each ear for ear ornaments.

Woman, æt. 30. Mass of brass rings and solid brass ornament in lobe of each ear. Thin brass rings in each helix. Neck heavily decorated with glass bead necklets, and necklet with heavy heart-shaped ornaments. Five brass bangles on right fore-arm; steel bangle on left fore-arm. One copper and two brass rings, left ring finger; five copper rings, left little finger.

Woman, æt. 25. Ear ornaments same as preceding. Neck heavily decorated with brass and glass bead necklets, one with ear scoop and tooth-pick pendent from a string. Brass necklet of ornaments with Travancore coin device. String necklet with 5 brass cylinders pendent, 5 brass bangles on right wrist; 6 brass, 2 iron bangles left wrist.

Right hand.

1 copper, 5 brass rings, middle finger.

1 iron, 3 brass rings, little finger.

Left hand.

1 copper, 5 brass rings, middle finger.

8 brass, 2 copper rings, ring finger.

1 brass ring, little finger.

Woman, æt. 25. Cajan roll in lobe of right ear. Rolled leaf in lobe of left ear.

The subject of artificial enlargement of the ear-lobe, and the geographical distribution of this artificial mutilation, by which the lobes are sometimes torn asunder, are treated of in an admirable paper by Mr. J. Park Harrison (*Journ. Anth. Inst.*, Vol. II, 1873). The practice of enlarging the ear-lobe is there recorded from Easter Island, India and Ceylon, Assam, Arakan, Burma and Laos, the Asiatic Islands (Nias, Nicobar, Borneo, etc.), South Pacific, America, and Africa. In his reference to India, Mr. Harrison says: "In the district of Madura, Dr. Shortt mentions that among the Maravars, who form the greater part of the population, the practice of piercing the ear-lobes, and 'so distending them as to touch the shoulders,' is still kept up among the women. The operation is here, as in other countries where the custom prevails, carried out during infancy, and the aperture in the ear-lobe is very gradually enlarged. Salt and water is applied during the first day or two; and at the end of a month weights, each slightly heavier than the last, are attached to the lobe until it is brought to the requisite length. Though ear ornaments of considerable size are common in other parts of India, I have not been able to learn that the lobe of the ear is now distorted in the manner above described in any other districts except Madura and Malabar."

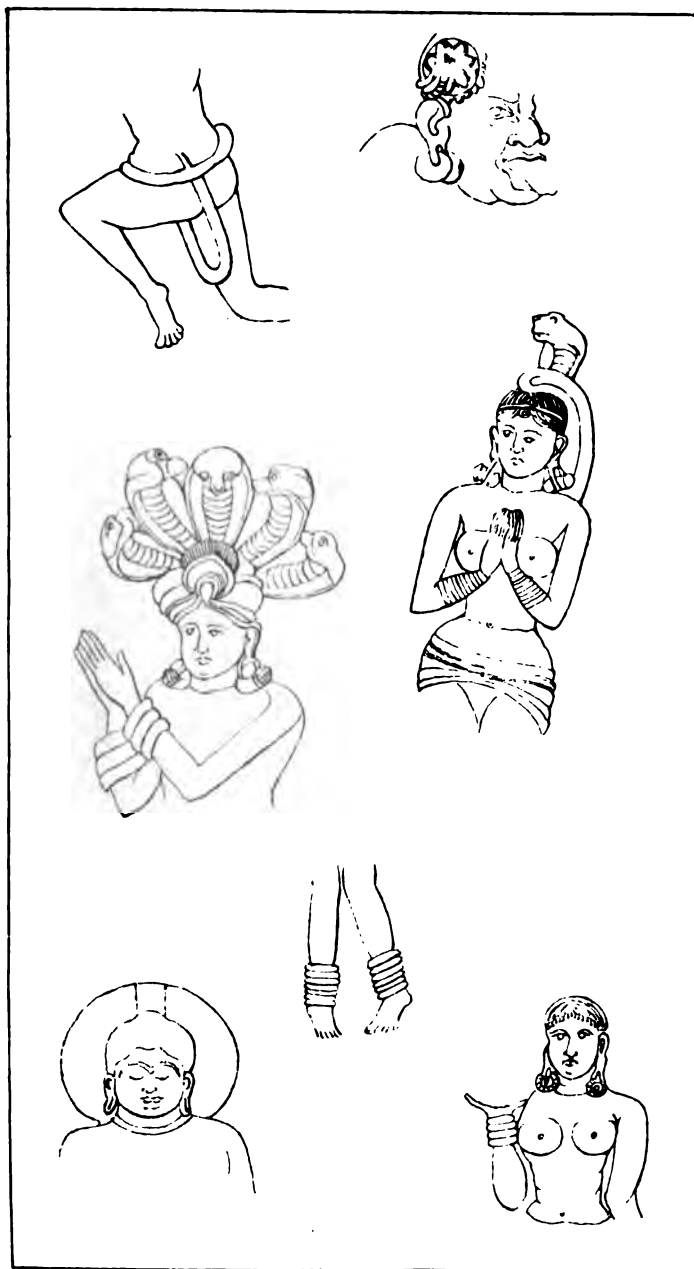
Mr. Harrison further refers to the fact that in one of the earliest fragments of sculpture in India, viz., the frieze of a temple at Bhitari near Benares, the Indian Bacchus, or the sun, has a disc of considerable size in the lobe of the right ear. And he points out that artificial enlargement of the lobe appears originally to have been adopted for the purpose of receiving a solar disc; and that the Ceylon Buddha, when he renounced idolatry, removed the emblem from his ear-lobes, which necessarily hung down in the manner shown in his images.

In the sculptures exhibited in the Madras Museum from the magnificent ruined stûpa at Amarâvati on the Kistna river, which dates back to the first centuries of the Christian

Era, not only is Buddha himself represented with the lobes of his ears dilated (without ornaments), but many of the figures, both male and female, have the lobes dilated, and ornamented with heavy rings with pendants, discs, and spiral rolls, and the upper arms, fore-arms and ankles are adorned either with series of light bangles, or with fewer heavy bangles, after the manner which still prevails at the present day among the females of some of the native tribes of Southern India. Moreover, the 'T' band round the loins (the "bande en T of the Moïs," of M. Zaborowski) is, in the Amarāvati sculptures, everywhere in evidence. It is then possible by a study of these sculptures to trace back the form of jewelry and rude attire which are still in vogue, to the second century A.D. (*vide* Plate xxii).

While the present chapter was being written, I learned that my friend, the Rev. A. Margöschis, of the S.P.G. Mission, Tinnevely, was an authority on the subject of ear-lobe dilatation. To him I am indebted for the following note on "the long ears of certain classes of women in Southern India." "To produce this artificial deformity," he writes, "is the work of men of the Koravar caste, whose occupations are bird-catching and basket-making. On or about the third day after birth, the troubles of a female infant begin, for the child's ears must be operated on, and for this purpose a knife with a triangular blade is used. Sometimes the ceremony is postponed until the child is sixteen days old. Among the Hindus a "good day" is selected, and Christians choose Sundays. The point of the knife is run through the lobe of the ear until the blade has penetrated for half an inch of its length. Both ears are cut, and a piece of cotton-wool is placed in the wounds, to keep the cut portions dilated. Every other day the Koravan must change the wool, and increase the quantity introduced. If the sores fester, a dressing is used of castor-oil and human milk* in equal parts, and, if there is much suppuration, an astringent, such as tamarind juice lotion, is used. The cut lobes will take not less than one month to heal, and for the whole of that time the process of dilatation is continued by passing through the lobes pledgets of cotton-wool, increasing gradually in size. After the wounds have healed, pieces of cotton cloth are rolled up, and placed in the lobes instead of the cotton-wool, and this is done for a few days only, when

* Human milk, *vide* 'Tattooing,' p. 117.



FIGURES FROM AMARAVATI

leaden rings are substituted, which are added to in number until as many as six or eight rings are in each ear. These drag the lobes down more and more, and by the time the infant is one year old, the process of elongating the lobes is complete in so far as the acute stage is concerned, and all that is necessary afterwards is to leave the leaden rings in the lobes, and to let the elongated ears grow as the child grows. Instead of keeping a large number of rings in the ears, they are melted down into two heavy, thick rings, which are kept in the ears until the girl is twelve or thirteen years of age, and by that time the acme of beauty will have been attained so far as the ears are concerned, because the lobes will reach down to the shoulders on each side. This is perfection. The fees for the operation in the first instance are from 3 fanams to $5\frac{1}{2}$ fanams (10 annas to R. 1-1-6). The custom described prevails among the following castes:—Vellālas, Shānars, Maravars, Paravars, shepherds, dyers, tailors, oilmongers, Pallars, and Pariahs. No people of the Telugu castes observe the custom, nor do any Brāhmans. The females of the Paravar caste (Roman Catholic fisher caste) are famous for the longest ears, and for wearing the heaviest and most expensive golden ear jewels made of sovereigns. Ordinary ear jewels cost Rs. 200, but heavy jewels are worth Rs. 1,000, and even more. It is said that the longer the ears the more jewels can be used, and this appears to be the rationale of elongated ears.

“In former days men also had long ears, but it is now reserved for the man who plays the bow and bells at demon dances. With regard to the prevalence of this custom of mangling the human body, and the possibility of its gradual removal, the Missionaries, especially in Tinnevely, have all along been the sternest foes of the barbarity. In one boarding school alone, consisting of 224 girls, there are 165 with short ears, so that only 59 have them elongated. This is the result of the advice and teaching of the European Missionaries. But, stranger still to relate, of the 165 girls mentioned above, no less than 51 have had their long ears operated on and cut short at the Mission hospital, and this they have consented to as a voluntary act. As it was once the fashion to have long ears, and a mark of respectability, so now the converse is true. Until the last twenty years, if a woman had short ears, she was asked if she was a dancing girl (*devadasi*), because that class kept their ears natural. Now, with the change of customs all round, even dancing girls are found with long ears. Muhammadan women have

their ears pierced all round the outer edges, and as many as twenty or twenty-five wire rings, made of iron or gold, are inserted in the holes; but the lobes are not elongated.

"The artificial deforming of the body assumes various phases in different parts of the world, and we have but to refer to the small feet of the Chinese, the flattening of the skull of infants amongst the North American Indians, and the piercing and elongation of the upper lip amongst certain tribes in Central Africa. In all cases these are attempts to improve upon nature, and the results are as revolting as they are often ghastly and wickedly cruel. The torture inflicted upon helpless Tamil babes is so great that it would be humane and righteous for Government to interfere, and to abolish long ears. The number of persons suffering from deafness, and from chronic discharges from the ear, is very considerably increased in consequence of the barbarity described above." Barbaric practices may be regarded from two points of view, humanitarian and ethnographic. And, while sympathising as a human being with the suppression of cruel rites such as the meriah sacrifice, female infanticide, and hook-swinging, as an ethnologist I regard with sorrow the fast approaching extinction of less brutal customs, which afford endless 'oopy.' If long ears were to be abolished by legislation, so too should be the painful process of squeezing bangles over the hand on to the wrist, and other mild ordeals which native custom requires, or demands.

In connection with the practice of dilating the lobes of the ears among the Kallans of the Madura district, Mr. J. H. Nelson writes * that, "both males and females are accustomed to stretch to the utmost possible limit the lobes of their ears. The unpleasant disfigurement is effected by the mother boring the ears of her baby, and inserting heavy pieces of metal, generally lead, into the apertures. The effect so produced is very wonderful, and it is not at all uncommon to see the ears of a Kallan hanging on his shoulders. When violently angry, a Kallan will sometimes tear in two the attenuated strips of flesh, which constitute his ears, expecting thereby to compel his adversary to do likewise as a sort of *amende honorable*: and altercations between women constantly lead to one or both parties having the ears violently pulled asunder. And formerly, where a

* 'Manual of the Madura District,' 1868.



TIYAR WOMAN, MALABAR.

Kalla girl was deputed, as frequently happened, to guide a stranger in safety through a Kalla tract, if any of her caste-people attempted to offer violence to her charge in spite of her protestations, she would immediately tear open one of her ears, and run off at full speed to her home to complain of what had been done. And the result of her complaint was invariably a sentence to the effect, among other things, that the culprits should have both their ears torn in expiation of their breach of the by-laws of the forest."

Mr. H. G. Nicholson, who was some years ago Head Assistant Collector at Ramnád in the Madura district, tells me that the young Maravan princesses used to come and play in his garden, and that, as they ran races, they used to hang on to their ears, lest the heavy ornaments should rend asunder the filamentous ear-lobes.

Among the female Tiyaṇs of Malabar, whom I have recently studied, the practice of dilating the lobes of ears prevails, though the deformity is not carried to such an extreme length as among the Kallans and Maravans. The operation is performed, when the child is a few months or a few years old, either by goldsmiths or by astrologers called Pannikar in South, and Kanisan in North Malabar. The lobe is pierced with a gold pin or thorn, and a thread inserted to prevent the wound from closing up. The ear is dressed daily with butter. After a week or two the thread is replaced by a thin plug of wood, and subsequently gradual dilatation is effected by means of pith soaked in water to make it swell. Further dilatation is effected by means of solid wooden ornaments, or rolls of lead or cajan.

A TODA PETITION.

IN my account of the Todas (Bull : No. 4, 1896) reference was made to the fact that the quondam simple-minded and milk-drinking Toda is thoroughly up to date in submitting petitions written in the bazaar by professional petition-writers, appealing to your honour's seat of mercy, &c. In this connection the following petition relating to the slaughter of buffaloes at the Toda funerals (kédus), which was recently submitted to Government through delegates of the Toda community, is not without interest. I therefore reproduce it in its entirety.

TO THE HONOURABLE BOARD OF REVENUE.

The humble petition of one hundred and twenty members of the Toda Community of and near Ootacamund, Nilgiris, through their counsel sheweth—

1. That from time immemorial your petitioners' community have, on the death of one of their number, held a kedu, at which they practise certain religious rites peculiar to their tribe.

2. That one of their rites is the sacrifice of buffaloes, so that the dead may not enter the abode of the shades without at least some of the appearance of the respectability he was accustomed to in his lifetime.

3. That the sacrifice of buffaloes at the kedu is the most important of all the rites and ceremonies of the religion which the community of Todas, your petitioners, practise; and that, without its due and proper observance, they believe that they are prejudiced in the next world, while the reputation of the surviving relatives of the dead are lowered in the eyes of the community from the same cause.

4. That, unfortunately for your petitioners' community, it has of late years become the fashion for Europeans to attend their kédus as a kind of theatrical display got up for their benefit; and it is from this fact that an impression has got abroad that unnecessary cruelty is practised on the buffaloes before they receive the "coup de grâce," as in a bull-fight in Spain: an impression that your petitioners maintain is entirely unjustified.

5. That the complaints and allegations of cruelty that have been made from time to time after a kédú have proceeded, not from those who had been present at, and witnessed the ceremony, but by those who have only heard that kédú did take place, buffaloes were killed thereat, and that certain Europeans were present and witnessed the ceremony.

That, if any further proof were needed of this statement, your petitioners would recall to your Honourable Board's recollection that probably the fullest account yet written of what transpires at these kédús came from the pen of the Honourable Mr. J. D. Rees, C.I.E., Collector of the Nilgiri and was published in such a well-known and widely read magazine as the 'Nineteenth Century'; and that this full and descriptive article appeared some ten years ago; that many kédús have taken place since, at which it has been the fashion for Europeans to attend in increasing numbers; and that until quite lately no allegation of cruelties practised at the kédús has been made, or, if made, seriously entertained by the authorities.

6. That the order passed on 30th March 1886 (No. 834, Judicial) restricted the sacrifice of buffaloes to two animals, and that your petitioners have always understood this to mean two buffaloes for each dead person; but that, in the view of the acting Collector of the Nilgiris, Mr. H. Tremenhoe, it was by that order intended to restrict the number of the buffaloes sacrificed at any one kédú to two, irrespective of the number of dead Todas for whom such kédú was being held: a view that no previous Collector of Nilgiris adopted; and that, in consequence, the proper holding and observance of a kédú is impossible.

7. That your petitioners desire to draw the Honourable Board's attention to the fact that, according to the custom of their community, unless a certain number of buffaloes are killed (two at least for each Toda), the members of the deceased's family, who, as a rule, subscribe one buffalo apiece for the purposes of the kédú, will no longer make such gifts; and that, if such gifts are not made, the kédú, which involves an outlay of a very considerable number of buffaloes in addition to those sacrificed (as many are always killed for entertaining the Todas present), must altogether cease to exist.

8. That your petitioners crave that your Honourable Board will clear up this point, and lay down, in explicit terms, whether the order was ever intended to impose such a restriction as interpreted by Mr. H. Tremenheere, the acting Collector of Nilgiris.

9. That, in the event of this restriction being found to be the intention of the order, your petitioners beg that your Honourable Board will give the matter their earnest attention, with a view to advising His Excellency the Governor in Council to rescind it, and remove such disabilities as your petitioners suffer from under it.

And your petitioners will ever pray.

On behalf of the 120 Toda petitioners.

* * * *

Petitioners' Counsel.

OOTACAMUND,
20th February, 1897.

In passing orders on the petition, the Government ruled that the interpretation put upon the existing orders in the matter by the District Magistrate (Collector) was correct; and that the number of animals killed at any one kedu should be restricted to two, whatever may be the number of Todas, in connection with whose decease the kedu is held.

MADRAS GOVERNMENT MUSEUM.

Bulletin, Vol. II, No. 3.

ANTHROPOLOGY.

Kādīrs of the Anaimalais; Malaiālis of the Shevaroyes;
Syllabus of Demonstrations on Anthropology;
The Dravidian Head; The Dravidian Problem.

With Seven Plates.

BY

EDGAR THURSTON,

SUPERINTENDENT, MADRAS GOVERNMENT MUSEUM; CORRESPONDANT
ÉTRANGER, SOCIÉTÉ D'ANTHROPOLOGIE DE PARIS.

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ANTHROPOLOGY.

KADIRS OF THE ANAIMALAIS.

IN striking and pleasant contrast to the suspicious Malaialis, who are dealt with in the next chapter, were the friendly Kādirs, who inhabit the Anaimalai hills (= elephant hills) and the mountain range which extends thence southward into Travancore. This study was undertaken with a view to acquiring an addition to our existing fragmentary knowledge of the short, broad-nosed tribes of Southern India, round whom, as the living remnant of an ancient, and once more numerous race, much interest will be found to centre when, if ever, these stray notulæ are amalgamated in book form.

A night journey by rail to Coimbatore, and forty miles thence by road at the mercy of a typically obstinate jutka pony, which landed me in a dense patch of prickly-pear (*Opuntia Dillenii*), brought me to the foot of the hills at Séthumadai, where I came under the kindly hospitality of the Conservator of Forests, Mr. H. A. Gass, and the District Forest Officer, Mr. F. A. Lodge. To the former, who has had long experience of the Kādirs, I am indebted for much information on forest and tribal matters, gathered during a fortnight of camp life at Mount Stuart, situated 2,350 feet above sea-level in the midst of a dense bamboo jungle, and playfully named after Sir Mountstuart Grant-Duff, who visited the spot during his Madras quinquennium.

At Séthumadai I made the acquaintance of my first Kadir, not dressed, as I hoped, in a primitive garb of leaves, but wearing a coloured turban and the cast-off red coat of a British soldier, who had come down the hill to carry up my camp bath, which acted as an excellent umbrella, to protect him from the driving showers. Very glad was I of his services in helping to convey my clothed, and consequently helpless self, across the mountain torrents

swollen by a recent burst of monsoon rain. Mount Stuart is easily accessible by a ghât road fit for bullock-cart traffic, and I lodge a protest against the short cut, up the steep and slippery boulders of which a pilot forest-guard conducted me, as being a severe trial to both lungs and legs of one fresh from city life in the plains, and a course of a daily maximum of 98° to 104° in the shade.

The Kâdir forest-guards, of whom there are several serving under the Government, looked, except for their noses, very unjungle-like by contrast with their fellow-tribesmen, being smartly dressed in regulation Norfolk jacket, knickerbocker-trousers, pattis (leggings), buttons, and accoutrements.

On arrival at the forest depôt, with its comfortable bungalows and Kâdir settlement, I was told by a native servant that his master was away, as an "elephant done tumble in a fit." My memory went back to the occasion, many years ago, when I took part in the autopsy of an elephant, which died in convulsions at the London Zoological Gardens. Its brain, I remember, weighed twelve pounds, and was very difficult of extraction owing to splintering of the cancellous tissue lining the air-sinuses. It transpired later in the day that a young and grown-up cow elephant had tumbled, not in a fit, but into a pit made with hands. The story has a philological significance, and illustrates the difficulty which the Tamulian experiences in dealing with the letter P.

An incident is still cherished at Mount Stuart in connection with a sporting 'globe-trotter,' who was accredited to the Conservator of Forests for the purpose of putting him on to 'bison' (the gaur—*Bos gaurus*) and other big game. On arrival at the depot he was informed that his host had gone to see the "ellipence." Incapable of translating the pigeon-English of the Pariah butler, and concluding that a financial reckoning was being suggested, he ordered the servant to pay the baggage coolies their ellipence, and send them away. To a crusted Anglo-Indian it is clear that ellipence could only mean elephants.

The salient characteristics of the Kâdirs, which will be dealt with in detail hereafter, may be briefly summed up as follows: short stature; dark skin; platyrhine. Men and women have the incisor teeth chipped. Women wear bamboo combs in the back-hair. Those whom I met with spoke a Tamil patois, running up the scale in talking, and



KADIR MAN.

finishing, like a Suffolker, on a higher note than they commenced on. But I am told that some of them speak a mixture of Tamil and Malayalam.

The Kādīrs afford a typical example of happiness without culture. Unspoiled by education, the advancing wave of which has not yet engulfed them, they still retain many of their simple "manners and customs." Quite refreshing was it to hear the hearty shrieks of laughter of the nude curly-haired children, wholly illiterate, and happy in their ignorance, as they played at funerals, or indulged in the amusement of making mud pies, and scampered off to their huts on my appearance. The uncultured Kādīr, living a hardy out-door life, and capable of appreciating to the full the enjoyment of an "apathetic rest" as perfect bliss, has, I am convinced, in many ways, the advantage over the poor under-fed student with a small-paid appointment under Government as the narrow goal to which the laborious passing of examination tests leads.

Living an isolated existence, confined within the thinly-populated jungle, where Nature furnishes the means of obtaining all the necessities of life, the Kādīr possesses little, if any, knowledge of cultivation, and objects to doing work with a *māmuti*, the instrument which serves the gardener in the triple capacity of spade, rake, and hoe. But armed with a keen-edged bill-hook he is immense. As Mr. O. H. Bensley says¹: "The axiom that the less civilised men are, the more they are able to do every thing for themselves, is well illustrated by the hill-man, who is full of resource. Give him a simple bill-hook, and what wonders he will perform. He will build houses out of *etāh*, so neat and comfortable as to be positively luxurious. He will bridge a stream with canes and branches. He will make a raft out of bamboo, a carving knife out of *etāh*, a comb out of bamboo, a fishing-line out of fibre, and a match from dry wood. He will find food for you where you think you must starve, and show you the branch which, if cut, will give you drink. He will set traps for beasts and birds, which are more effective than some of the most elaborate products of machinery." A European, overtaken by night in the jungle, unable to light fire by friction or to climb trees to gather fruits, ignorant of the edible roots and berries, and afraid of wild beasts, would

¹ Lecture delivered at Trivandrum. M.S.

in the absence of comforts, be quite as unhappy and ill-at-ease as a Kādir surrounded by plenty at an official dinner-party.

At the forest dépôt the Kādir settlement consists of neatly constructed huts, made of bamboo deftly split with a bill-hook in their long axis, thatched with leaves of the teak tree (*Tectona grandis*) and bamboo (*Beesha travancorica*), and divided off into verandah and compartments by means of bamboo partitions. But the Kādirs are essentially nomad in habit, living in small communities, and shifting from place to place in the jungle, whence they suddenly re-appear as casually as if they had only returned from a morning stroll instead of a long camping expedition. In this way the wondrous type figured in Plate XXVI, of whom I knew by repute, turned up to my joy during my stay at Mount Stuart, and was instantly photographed, lest he should disappear again as mysteriously as he arrived. When wandering in the jungle, the Kādirs make a rough lean-to shed covered over with leaves, and keep a small fire burning through the night, to keep off bears, elephants, tigers, and leopards. They are, I am told, fond of dogs, which they keep chiefly as a protection against wild beasts at night. The camp fire is lighted by means of a flint and the floss of the silk-cotton tree (*Bombax malabaricum*), over which powdered charcoal has been rubbed. Like the Kurumbas, the Kādirs are not, in a general way, afraid of elephants, but are careful to get out of the way of a cow with young, or a solitary rover, which may mean mischief. On the day following my descent from Mount Stuart, a Wudder cooly woman was killed on the ghāt road by a solitary tusker. Familiarity with wild beasts, and comparative immunity from accident, have bred contempt for them, and the Kādirs will go where the European, fresh to elephant land, fears to tread, or conjures every creak of a bamboo into the approach of a charging tusker. As an example of pluck worthy of a place in Kipling's 'Jungle-book,' I may cite the case of a hill-man and his wife, who, overtaken by night in the jungle, decided to pass it on a rock. As they slept, a tiger carried off the woman. Hearing her shrieks, the sleeping man awoke, and followed in pursuit in the vain hope of saving his wife. Coming on the beast in possession of the mangled corpse, he killed it at close-quarters with a spear. Yet he was wholly unconscious that he had performed an act of heroism worthy of the bronze cross 'for valour.'



KADIR WOMAN.

The Kādīrs carry loads strapped on the back over the shoulders by means of fibre, instead of on the head in the manner customary among coolies in the plains; and women on the march may be seen carrying the cooking utensils on their backs, and often have a child strapped on the top of their household goods. The dorsal position of the babies, huddled up in a dirty cloth, with the ends slung over the shoulders and held in the hands over the chest, at once caught my eye, as it is contrary to the usual native habit of straddling the infants across the loins as a saddle.

The Kādīrs have never claimed, like the Todas, and do not possess any land on the hills. But the Government has declared the absolute right of the hill tribes to collect all the minor forest produce, and to sell it to the Government through the medium of a contractor, whose tender has been previously accepted. The contractor pays for the produce in coin at a fair market rate, and the Kādīrs barter the money so obtained for articles of food with contractors appointed by Government to supply them with their requirements at a fixed rate, which will leave a fair, but not exorbitant margin of profit to the vendor. The principal articles of minor forest produce of the Ānaimalai hills are wax, honey, cardamoms, myrabolams, ginger, dammar, turmeric, deer horns, elephant tusks, and rattans. And of these, cardamoms, wax, honey, and rattans are the most important. Honey and wax are collected at all seasons, and cardamoms from September to November. The total value of the minor produce collected, in 1897-98, in the South Coimbatore division (which includes the Ānaimalais) was Rs. 7,886. This sum was exceptionally high owing to a good cardamom crop. An average year would yield a revenue of Rs. 4,000—5,000, of which the Kādīrs receive approximately 50 per cent. They work for the Forest department on a system of short advances for a daily wage of four annas. And, at the present day, the interests of the Forest department and planters, who have acquired land on the Ānaimalais, both anxious to secure hill men for labour, have come into mild collision.

Some Kādīrs are good trackers, and a few are good shikāris. A zoological friend, who had nicknamed his small child his "little shikarē" (= little sportsman) was quite upset because I, hailing from India, did not recognise the word with its misplaced accent. One Kādīr, named Viapoori Muppan, is still held in the memory of Europeans,

who made a good living, in days gone by, by shooting tuskers, and had one arm blown off by the bursting of a gun. He is reputed to have been a much married man, greatly addicted to strong drinks, and to have flourished on the proceeds of his tusks. At the present day, if a Kādir finds tusks, he must declare the find as treasure-trove, and hand it over to Government, who rewards him at the rate of Rs. 15 to Rs. 25 per maund of 25 lbs. according to the quality. Government makes a good profit on the transaction, as exceptionally good tusks have been known to sell for Rs. 5 per lb. If the find is not declared, and discovered, the possessor thereof is punished for theft according to the Act. By an elastic use of the word cattle, it is, for the purposes of the Madras Forest Act, made to include such a heterogeneous zoological collection of mammalia as elephants, sheep, pigs, goats, camels, buffaloes, horses—and asses. A classification which recalls to mind the occasion on which the Flying-fox or Fox-bat was included in an official list of the insectivorous birds of the Presidency; and, further, a report on the wild animals of a certain district, which was triumphantly headed with the "wild tattü," the long-suffering, but pig-headed country pony, at whose hands most touring officers have "suffered much misery" (as the Natives expressed their feelings when a certain fast-bowling Colonel went on in a cricket match).

Often, when out on the tramp with the late Government Botanist, Mr. M. A. Lawson, I have heard him lament that it is impossible to train arboreal monkeys to collect specimens of the fruit and flowers of lofty forest trees, which are inaccessible to the ordinary man. Far superior to any trained Simian is the Kādir, who, by means of pegs or notches, climbs even the tallest masts of trees with an agility which recalls to memory the celebrated picture in 'Punch,' representing Darwin's 'Habit of climbing plants.' For the ascent of comparatively low trees, notches are made with a bill-hook, alternately right and left, at intervals of about thirty inches. To this method the Kādir will not have recourse in wet weather, as the notches are damp and slippery, and there is the danger of an insecure foot-hold. In the system of scaling a tree by means of pegs (*vide* Plate XXVIII), a number of pegs, made of sharp-pointed bamboo, are carried round the loins, and driven securely into the tree by sharp blows with a bill-hook. The pegs are left in the tree, and a fresh set used for the next tree.



KADIR TREE-CLIMBING.

I gather, from an anonymous account of the process by one who had considerable knowledge of the Kādīrs, that "they will only remove the hives during dark nights, and never in the day-time or on moonlight nights. In removing them from cliffs, they use a chain made of cane or rattan, fixed to a stake or a tree on the top. The man, going down this fragile ladder, will only do so while his wife or son watches above to prevent any foul play. They have a superstition that they should always return the way they go down, and decline to get to the bottom of the cliff, although the distance may be less, and the work of re-climbing avoided. For hives on trees, they tie one or more long bamboos to reach up to the branch required, and then climb up. They then crawl along the branch until the hive is reached. They devour the bee-bread and the bee-maggots or larvæ, swallowing the wax as well." In a note on a shooting expedition in Travancore,² Mr. J. D. Rees, describing the collection of honey by the Kādīrs, of the southern hills, says that they "descend giddy precipices at night, torch in hand, to smoke out the bees, and take away their honey. A stout creeper is suspended over the abyss, and it is established law of the jungle that no brother shall assist in holding it. But it is more interesting to see them run a ladder a hundred feet up the perpendicular stem of a tree, than to watch them disappearing over a precipice. Axe in hand, the honey-picker makes a hole in the bark for a little peg, standing on which he inserts a second peg higher up, ties a long cane from one to the other, and by night—for the darkness gives confidence—he will ascend the tallest trees, and bring down honey without any accident." I have been told, with how much of truth I know not, that, when a Kādir goes down the face of a rock or precipice in search of honey, he sometimes takes with him, as a precautionary measure, and guarantee of his safety, the wife of the man who is holding the ladder above.

An important ethnographic fact, and one which is significant, is that the detailed description of tree-climbing by the Dyaks of Borneo, as given by Wallace,³ might have been written on the Anaimalai hills, and would apply equally well in every detail to the Kādir. "They drove in," Wallace writes, "a peg very firmly at about three feet from the ground, and, bringing one of the long bamboos, stood it upright close to the tree, and bound it firmly to the two first

² *Nineteenth Century*, 1898.

³ 'Malay Archipelago'.

pegs by means of a bark cord and small notches near the head of each peg. One of the Dyaks now stood on the first peg and drove in a third about level with his face, to which he tied the bamboo in the same way, and then mounted another step, standing on one foot, and holding by the bamboo at the peg immediately above him, while he drove in the next one. In this manner he ascended about twenty feet, when the upright bamboo became thin; another was handed up by his companion, and this was joined on by tying both bamboos to three or four of the pegs. When this was also nearly ended, a third was added, and shortly after the lowest branch of the tree were reached, along which the young Dyak scrambled.

"The ladder was perfectly safe, since, if any one peg were loose or faulty, the strain would be thrown on several others above and below it. I now understood the use of the line of bamboo pegs sticking in trees, which I had often seen." Such is the description given by Wallace, and it may be compared with Plate XXVIII, which represents a tree with a line of pegs left in it, and an agile young Kādir climbing a tree by means of pegs with bamboos bound to them.

In their search for produce in the evergreen forests of the higher ranges, with their heavy rainfall, the Kādirs become unpleasantly familiar with leeches and blue bottle flies, which flourish in the moist climate. And it is recorded that a Kādir, who had been gored and wounded by a bull 'bison,' was placed in a position of safety while a friend ran to the village to summon help. He was not away for more than an hour, but, in that short time, flies had deposited thousands of maggots in the wounds, and, when the man was brought into camp, they had already begun burrowing into the flesh, and were with difficulty extracted. On another occasion, the eye-witness of the previous unappetising incident was out alone in the forest, and shot a tiger two miles or so from his camp. Thither he went to collect coolies to carry in the carcase, and was away for about two hours, during which the flies had, like the child in the story, 'not been idle,' the skin being a mass of maggots and totally ruined. I have it on authority that, like the Kotas of the Nilgiris, the Kādirs will eat the putrid and fly-blown flesh of carcases of wild beasts, which they come across in their wanderings. To a dietary which includes succulent roots, which they upturn with a digging stick, sheep, fowls, rock-snakes (Python), deer, porcupines, rats (field, not



KADIR BOY.

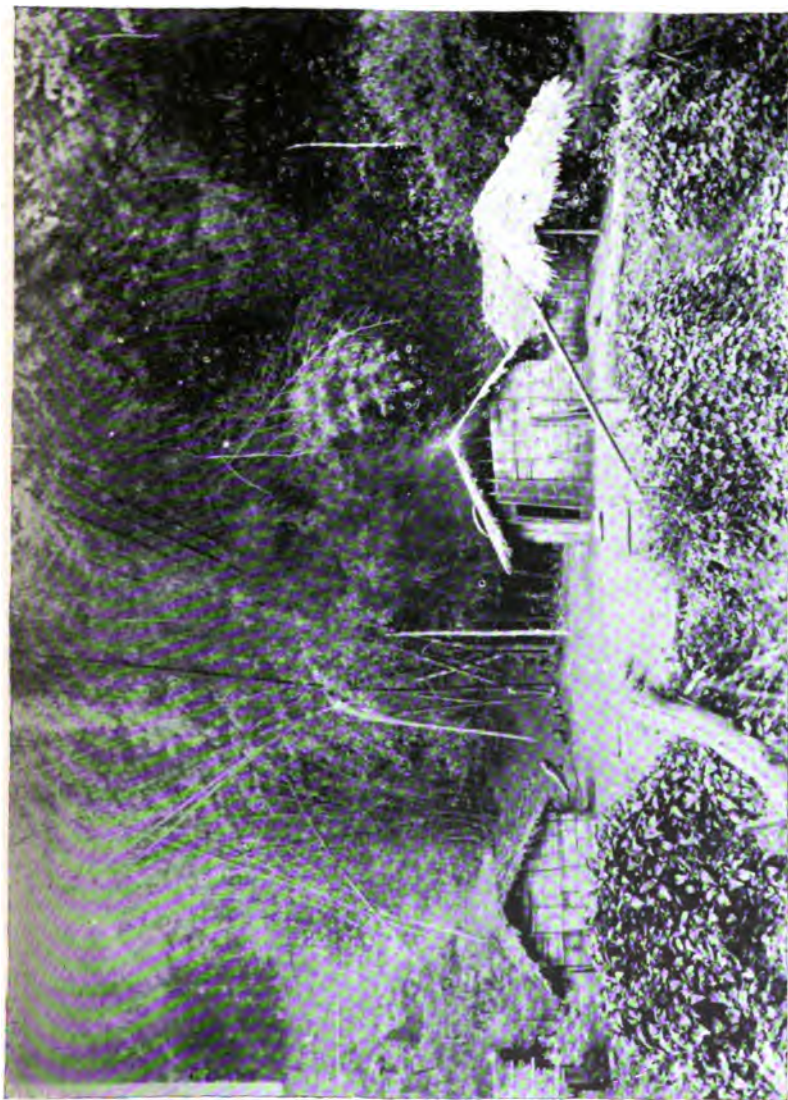
house), wild pigs, monkeys, &c., they do credit by displaying a hard, well-nourished body. The mealy portion of the seeds of the *Cycas* tree, which flourishes on the lower slopes of the Ânimalais, forms a considerable addition to the *ménu*. In its raw state the fruit is said to be poisonous, but it is evidently wholesome when cut into slices, thoroughly soaked in running water, dried, and ground into flour for making cakes, or baked in hot ashes. The Kâdir is said to prefer roasting and eating the flesh of animals with the skin on. For catching rats, jungle-fowl, &c., he resorts to cunningly devised snares and traps made of bamboo and fibre, as a substitute for a gun. Porcupines are caught by setting fire to the scrub jungle round them as they lie asleep, and thus smoking and burning them to death.

When a Kâdir youth's thoughts turn towards matrimony, his parents, who select his bride, go to the parents of the girl, and ask their consent to the proposed alliance. If this is accorded, a dinner-party is given at the home of the bridegroom-elect. During the period of engagement the young man's parents give meals of rice and other things to their future daughter-in-law. They make presents too, in view of purchase money, of a new turban and cloth to the girl's father, and a new cloth to her mother. On the wedding day a feast of rice, sheep, fowls, and other luxuries, is given by the parents of the bridegroom, to which the Kâdir community is invited. The bride and bridegroom stand beneath a *pandâl* (arch) decorated with flowers, which is erected outside the home of the bridegroom, while men and women dance separately to the music of drum and pipe. The bridegroom's mother or sister ties the *tâli* (marriage badge) of gold or silver round the bride's neck, and her father puts a turban on the head of the bridegroom. The contracting parties link together the little fingers of their right hands as a token of their union, and walk in procession round the *pandâl*. Then, sitting on a reed mat of Kâdir manufacture, they exchange betel. The marriage tie can be dissolved for incompatibility of temper, disobedience on the part of the wife, adultery, &c., without appeal to any higher authority than a council of elders, who hear the arguments on both sides, and pronounce judgment on the evidence. As an illustration of the manner in which such a council of hill-men disposes of cases, Mr. Bensley cites the case of a man who was made to carry forty basket-loads of sand to the house of the person against whom he

had offended. He points out how absolute is the control exercised by the council. Disobedience would be followed by expulsion, and expulsion would mean being turned out into the jungle, to obtain a living in the best way one could.

By one Kādir informant I was assured, as he squatted on the floor of my bungalow at "question time," that it is essential that a wife should be a good cook, in accordance with the maxim that the way to the heart is through the mouth. How many men in civilised western society, who suffer from marrying a wife wholly incompetent, like the first Mrs. David Copperfield, to conduct the housekeeping, might well be envious of the system of marriage as a civil contract to be sealed or unloosed according to the cookery results! Polygyny is indulged in by the Kādirs, who agree with Benedick that "the world must be peopled," and hold more especially that the numerical strength of their own tribe must be maintained. The plurality of wives seems to be mainly with the desire for offspring, and the father-in-law of one of the forest-guards informed me that he had four wives living. The first two wives producing no offspring, he married a third, who bore him a solitary male child. Considering the result to be an insufficient contribution to the tribe, he married a fourth, who, more prolific than her colleagues, gave birth to three girls and a boy, with which he remained content. In the code of polygynous etiquette, the first wife takes precedence over the others, and each wife has her own cooking utensils.

Special huts are maintained for women during menstruation and parturition. For three months after the birth of a child, the woman is considered unclean. When the infant is a month old, it is named without any elaborate ceremonial, though the female friends of the family collect together. Sexual intercourse ceases on the establishment of pregnancy, and the husband indulges in promiscuity. Widows are not allowed to re-marry, but may live in a state of concubinage. No ceremony is performed when boys or girls reach puberty. Women are said to suckle their children till they are two or three years old, and a mother has been seen putting a lighted cigarette to the lips of a year old baby immediately after suckling it. If this is done with the intention of administering a sedative, it is less baneful than the pellet of opium administered to Anglo-Indian babies rendered fractious by troubles climatic, dental,



KADIR HUTS.

and other. The Kādir women chew tobacco. The men smoke the coarse tobacco as sold in the bazārs, and showed a marked appreciation of Spencer's Torpedoes No. 1, which I had to distribute among them in lieu of the cheaper cheroots, which generally travel with me for the purposes of bribery and conciliation.

The religion of the Kādirs is a crude polytheism; and vague worship of stone images or invisible gods. It is, as Mr. Bensley expresses it, "an ejaculatory religion, finding vent in uttering the names of the gods and demons." The gods, as enumerated and described to me, were as follows:—

(1) Paikutlātha—a projecting rock overhanging a slab of rock, on which are two stones set up on end. Two miles east of Mount Stuart.

(2) Athuvisariamā—a stone enclosure, 10 to 15 feet square, almost level with the ground. It is believed that the walls were originally ten feet high, and that the mountain has grown up round it. Within the enclosure there is no representation of the god. Eight miles north of Mount Stuart.

(3) Vanathavāthi has no shrine, but is worshipped anywhere as an invisible god.

(4) Iyappaswāmi—a stone set up beneath a teak tree, and worshipped as a protector against various forms of sickness and disease. In the act of worshipping, a mark is made on the stone with ashes. Two miles and a half from Mount Stuart, on the ghāt road to Sēthumadai.

(5) Māsanyātha—a female recumbent figure in stone on a masonry wall in an open plain near the village of Anaimalai, before which trial by ordeal is carried out. The goddess has a high repute for her power of detecting thieves or rogues. Chillies are thrown into a fire in her name, and the guilty person suffers from vomiting and diarrhoea.

When Kādirs fall sick, they worship the gods by saluting them with their hands to the face, burning camphor, and offering up fruits, cocoanuts and betel.

The Kādir dead are buried in a grave, or, if death occurs in the depths of the jungle, with a paucity of hands available for digging, the corpse is placed in a crotvice between the rocks, and covered over with stones. The grave is dug from four to five feet deep. There is no special burial ground, but some spot in the jungle, not far from the scene of death, is selected. A band of music—drum and

pipe—plays weird dirges outside the hut of the deceased, but does not accompany the funeral party to the grave. The body is carried on a bamboo stretcher, lying on a mat, and covered over with a cloth and mat. As it leaves the hut, rice is thrown over it. The funeral ceremony is simple in the extreme. The corpse is laid in the grave on a mat in the recumbent posture with head towards the east, and covered over with a mat and leaves. The grave is then filled in with earth. No stone, or sepulchral monument of any kind, is erected, to indicate the spot. Two years after death a memorial festival, called karrumanthram, is held, at which the Kādīrs are invited to a feast with drinks and a dance. The Kādīr believes that the dead go to heaven, which is up in the sky, but has no views as to what sort of place it is, as there is no one who can tell him. He is, in a mild way, a philosopher.

On a certain Monday in the months of Ādi and Āvani (July-September) the Kādīrs observe a festival called nōmbu, during which a feast is held, after they have bathed and anointed themselves with oil. It was, they say, observed by their ancestors, but they have no definite tradition as to its origin or significance.

Turning now to the characteristics of the Kādīrs. They belong to the curly-haired gentes dolichocephalæ orthognathæ of Retzius, which, being translated, signifies that they are long-headed people with the upper jaw straight when viewed in profile, and have no resemblance to the prognathous (prominent-jawed) and woolly-haired Negro. According to Mr. Bensley "the Kādīr has an air of calm dignity, which leads one to suppose that he had some reason for having a more exalted opinion of himself than that entertained for him by the outside world. A forest officer of a philanthropic turn had a very high opinion of the sturdy independence and blunt honesty of the Kādīr, but he once came unexpectedly round a corner, to find two of them exploring the contents of his portmanteau, and subsequent search revealed that they had abstracted a pair of scissors, a comb, and a looking-glass." "The Kādīrs," Mr. Nicholson writes "are, as a rule, rather short in stature and deep-chested, like most mountaineers; and, like many true mountaineers, they rarely walk with a straight leg. Hence their thigh muscles are often abnormally developed at the



KADIR GIRL.

expense of those of the calf. Hence, too, in part, their dislike to walking long distances on level ground, though their objection, mentioned by Colonel Douglas Hamilton, to carrying loads in the plains is deeper rooted than that arising from mere physical disability. This objection is mainly because they are rather a timid race; and never feel safe out of the forests. They have also often affirmed that the low-country air is very trying to them." As a matter of fact, they very rarely go down to the plains, even as far as the village of Anaimalai, only fifteen miles distant from Mount Stuart. One woman, whom I saw, had, however, been as far as Palghat by railway from Coimbatore, and had returned thence very much up-to-date in the matter of jewelry and the latest barbarity in imported piece-good saris.

With the chest-girth of the Kādīrs, as well as their general muscular development, I was very much impressed; and the following comparative series of figures shows that, so far as wind is concerned, they would, like other jungle tribes of short stature, be valuable camp-followers in a mountaineering expedition.

				Average height. CM.	Average chest. CM.	Average chest relative to stature 100.
Paniyans	..	..	..	157.4	81.5	51.8
Kādīrs	..	..	..	157.7	80.5	51.4
Kurumbas	..	..	..	157.5	79.2	50.3
Tamil Pariahs	..	..	..	162.1	79.3	48.9
Eurasians (poorer classes) ..				166.6	79.1	47.7

The most interesting custom, which prevails among the Kādīrs, and among them alone, so far as I know, of the entire population of the Indian peninsula, is that of chipping all or some of the incisor teeth, both upper and lower, into the form of a sharp-pointed, but not serrated cone. The operation, which is performed with a chisel or bill-hook and file by members of the tribe skilled thereat, on boys at the age of eighteen, and girls at the age of ten or thereabouts, has been thus described: "The girl to be operated on lies down, and places her head against a female friend, who holds her head firmly. A third woman takes a sharpened bill-hook, and chips away the teeth till they are shaded to a point, the girl operated on writhing and groaning with the pain. After the operation she looks dazed, and in a

very few hours the face begins to swell. Swelling and pain last for a day or two, accompanied by severe headache." Whether this practice is one which the Kadir has hit on spontaneously in comparatively modern times, or whether it is a relic of a custom resorted to by their ancestors of long ago, which remains as a stray survival of a custom once more widely practised among the remote inhabitants of Southern India, cannot be definitely asserted, though I incline to the latter view. Let us, however, see from the available literature on the subject what is the present-day geographical distribution of the practice of tooth chipping or filing, as a possible clue to the source from which it was derived. In 'Anthropological Notes and Queries' it is stated that "it is chiefly in Africa that the custom of deforming the teeth is practised"; and, as different modes of doing it prevail among different tribes, the characters afforded in this way will probably be found of considerable ethnographical importance. The practice appears in general to be limited to the front or incisor teeth, and consists either in extracting, or, more usually perhaps, in breaking off one or more of them, or of filing them either to a sharp single point, or in serrate fashion." Westermarck⁵ informs us that, when the age of puberty draws near, "in several parts of Africa and Australia they knock out some teeth, knowing that they would otherwise run the risk of being refused on account of ugliness. Mr. Crawford tells us that, in the Malay Archipelago, the practice of filing and blackening the teeth is a necessary prelude to marriage, the common way of expressing the fact that a girl has arrived at puberty being that 'she has had her teeth filed,' and, with reference to some of the Natives of the Congo countries, Tuckey says that the two upper front teeth are filed by the men, so as to make a large opening, and scars are raised on the skin, both being intended by the men as ornamental, and principally done with the idea of rendering themselves agreeable to the women." Further, Darwin writes⁶ "The Natives of the Upper Nile knock out the four front teeth, saying that they do not wish to resemble brutes. Further south, the Batokas knock out only the two upper incisors, which, as Livingstone remarks, gives the face a hideous appearance; but these people think the presence of the incisors most unsightly, and, on beholding some Europeans, cried out 'Look at the great teeth'! In parts of Africa

⁵ 'History of Human Marriage.'

⁶ 'Descent of Man.'

and the Malay Archipelago the Natives file the incisors into points like a saw, or pierce them with holes, into which they insert studs." I have somewhere read that the practice of tooth-filing is resorted to, not for ornament or as a means of sexual attraction, but that the Natives may not degrade themselves by using all their teeth in eating like a cow. Be its origin what it may among the Kādīrs, I cannot but think that the geographical distribution of the practice of tooth chipping, of the use of the boomerang, and the custom of dilating the lobes of the ears, are important links of evidence in connection with the Dravidian problem, which is discussed later on.

A friendly old woman, with huge discs in the widely dilated lobes of the ears, and a bamboo five-pronged comb in her back-hair, who acted as spokesman on the occasion of a visit to a charmingly situated settlement in a jungle of magnificent bamboos by the side of a mountain stream, pointed out to me, with conscious pride, that the huts were largely constructed by the females, while the men worked for the sircar (Government). The females also carry water from the streams, collect fire-wood, dig up edible roots, and carry out the sundry household duties of a housewife. Both men and women are clever at plaiting bamboo baskets, necklets, &c. I was told one morning by a Kādir man, whom I met on the road, as an important item of news, that the women in his settlement were very busy dressing to come and see me—an event as important to them as the dressing of a *débutante* for presentation at the Court of St. James'. They eventually turned up without their husbands, and evidently regarded my methods as a huge joke organised for the amusement of themselves and their children. The hair was neatly parted, anointed with a liberal application of cocoanut oil, and decked with wild flowers. Beauty spots and lines had been painted with coal-tar dyes on the forehead, and turmeric powder freely sprinkled over the top of the heads of the married women. Some had even discarded the ragged and dirty cotton cloth of every-day life in favour of a colour-printed imported *sāri*. One bright, good-looking young woman, who had already been through the measuring ordeal, acted as an efficient lady-help in coaching the novices in the assumption of the correct positions. She very readily grasped the situation, and was manifestly proud of her temporary elevation to the rank of standard-bearer to Government. The Kādir women, when they meet a European on the road,

with their body-cloths wrapped round them in such a way as to expose the upper halves of their breasts, manifest symptoms of shyness and modesty, and stand aside with face averted so that they cannot see the stranger, on the same principle which prompts some Eastern women, if surprised when taking a bath, to turn the face, no further concealment being necessary. Ideas of modesty, it has been said, are altogether relative and conventional, and it is not the feeling of shame that has given rise to the covering of the body, but the covering that has provoked the feeling of shame. This is well illustrated by the difference in the behaviour of the Native females of Malabar and the Tamil women of the East Coast. In Malabar the body-clothing of the Nāyar, Tiyan, Cheruman females, etc., above the loins is exceedingly scanty. As Mr. Logan says: "The women clothe themselves in a single white cloth of fine texture reaching from the waist to the knees, and occasionally, while abroad, they throw over the shoulder and bosom another similar cloth. But by custom the Nāyar women go uncovered from the waist. Upper garments indicate lower caste, or sometimes, by a strange reversal of Western notions, immodesty." The observant Abbé Dubois noticed that, "of all the women in India, it is especially the courtesans (dancing-girls or deva-dasis) who are the most decently clothed, as experience has no doubt taught them that for a woman to display her charms damps sensual ardour instead of exciting it, and that the imagination is more easily captivated than the eye."

A Tamil woman, young or old and wizen, going along the high road, with breasts partially uncovered by her ample body-cloth, will, when she sees a European coming, pull the cloth over them from a feeling of shame in the presence of the foreigner, which is absent in the presence of her fellow country-men. So, too, a Tamil woman, when undergoing the process of measurement at my hands, is most particular in arranging her upper garment so as to conceal her breasts, whereas a Malabar woman has no hesitation in appearing with breasts completely exposed, or in throwing off the slender wrapper which may cover her shoulders, and considers the exposure in no way immodest. I have heard that the women of a tribe (I think in South Canara), whose leafy clothing is, in their home surroundings, reduced to slender proportions, when they come into a town,

walk in Indian file, concealing their nakedness by means of a series of cloths stitched together, spread out between them and extending down the line. A friend, bartering for the two bead necklets, which constituted the full-dress of a jungle girl, had no difficulty in securing one, but no bribe would tempt her to part with the second, as, in its absence, she would be naked.

The chief characteristics of the Kādirs, their system of personal adornment, etc., will be gathered from the following illustrative cases. It may be noted that the Kādirs do not practise tattooing.

Man, æt. 25. Height 157.4 cm. Nasal index 102.3. Chest girth 86.4 cm. Abundant curly hair, parted in the middle line, tied with string in a bunch (kudumi) behind, and saturated with cocoanut oil. Skin dark-brown. Slight moustache. Hair feebly developed on trunk and extremities. Upper and lower incisor teeth chipped. Only stump remaining of one tooth, which was broken during the operation. Dirty plain cotton loin-cloth. Two brass ornaments in lobe of each ear. Carries bill-hook and pegs for tree-climbing, hanging by fibre rope from left loin.

Man, æt. 30. Hair long and wavy, tied in a loose bunch behind. Three brass ornaments in lobe of each ear. Brass rings on right ring and little fingers.

Man, æt. 27. White turban. Glass bead necklet. Hair clipped short in front in observance of a death ceremony.

Man, æt. 23. Skin as dark as that of a typical Irula of the Nilgiris. Unparted and untrimmed mass of long curly hair. Very sturdy build. Hard, well developed muscles. Height 156.2 cm. Chest girth 87.5 cm. Shoulders 42 cm. Nasal index 100.

Man, æt. 30. Slight billy-goat beard as well as moustache (unusual). Steel bangle on left upper arm.

Man, æt. 28. Steel ring on left second toe.

Boy, æt. 18. Hair worn in a curly fringe in front, plastered down on top with cocoanut oil, and tied in a compact bunch behind. Brass, bead, and plaited grass necklets. Brass ornament in lobe of each ear. Brass ring with ornament pendent from link-chain in helix of each ear.

It is sometimes difficult to distinguish adolescent youths, with curly fringe, breasts concealed by a cotton cloth, and necklets, from girls. And I was myself several times caught in an erroneous diagnosis of sex.

Boy, æt. 15—16. Plaited grass necklet, and necklet of big brass and glass beads. Brass ring with pendent ornament in helix of left ear. Brass ornament in left lobe. Plug of wood in right nostril.

Boy, æt. 15—16. Mass of long curly hair. Flat bridge to nose. Upper and lower lips conspicuously everted (*cf.* Plate XXVI). Brass and glass bead ornament in right helix. Three brass ornaments, and brass wire with pendent ornaments in left helix. Two brass ornaments in left lobe. Plaited grass necklet. Brass bangle on left wrist.

Boy, æt. 5—6. Clean-shaved on top and front of head. Wooden plug in lobe of each ear. Four upper incisor teeth chipped.

Boy, æt. 5. Hair shaved on top and front of head, tied in a bunch behind. Chunám (lime) smeared over forehead for ornament. Brass ring in lobe of each ear. Steel ring on right wrist.

Boy, æt. 5. Hair a mass of short curls without parting.

Infant in arms. Head shaved all over, except frontal lock. Bead necklace with dried tortoise foot pendent to ward off fever.

Infant in arms. String round neck with wooden imitation of tiger's claw to act as a charm.

Infant in arms. Steel necklet with jungle-worn crocodile tooth pendant, mimicking a phallic emblem, and also supposed to ward off attacks from a mythical water elephant, which is believed to live in the mountain streams.

Infant in arms. Glass bead necklets. Steel bangle on right upper arm. Steel wire round left ankle.

Infant in arms. Necklet made of the seeds of *Coix lachryma* (Job's tears) strung together.

Woman, æt. 23. Height 142.8 cm. Nasal index 94.6. Dirty cotton body and loin cloths. Upper and lower incisor teeth chipped. Hair parted in middle, smoothed with cocoanut oil, and tied in a knot behind. Turmeric powder sprinkled on top of head (forbidden to unmarried girls and widows). Dark blue coal-tar dye streak in mid-frontal line and white spot on glabella. Brass and steel rings in right helix; steel rings in left helix. Cajan roll in dilated lobe of each ear. String and bead necklets. Five steel bangles on right wrist; three steel bangles on left wrist.

Woman, æt. 22. Lantana flowers in hair. White spot on glabella. Wooden plug in each helix. Brass ring in lobe of right ear. Plaited grass and bead necklets.

Woman, æt. 40. Thread round neck, with bases of porcupine quills pendant.

Woman, æt. 45. Bamboo comb, with ornamental geometric patterns scratched on it, worn in back hair and used for doing hair. Lobes of ears widely dilated, pendulous and as elastic as India-rubber. Length of slit in lobes 5.5 cm. Wears no ornaments, as she is a widow.

Woman, æt. 25. Turmeric powder on top of head. Blue and white beauty spots on glabella. Brass and bead ornament in septum of nose. Brass ornament in left nostril. Solid wooden disc in lobe of right ear; cajan roll in left lobe. Wooden plug and brass pendant ornament in each helix. Brass and glass bead necklet with imitation Venetian sequins. Steel bangles on right upper arm and forearm. Steel and six armlets on left upper arm. Three steel armlets on left forearm. Spiral steel ring on right thumb and little finger, and left thumb.

Girl, æt. 4. Plug of wood in lobe of each ear. Glass bead necklets. Steel ring on right first finger. Brass bangle on left wrist.

Since writing the above account, I have come across the following note, relating to the Kādīrs, by Captain Cotton, in the 'Madras Journal of Literature and Science,' 1858. "These little dwarfish people," he says, "file their front teeth into points, to facilitate their eating the hardest roots. There is some nerve shown in this, and we may look with wonder and respect upon the exiled lords of the ancient land, when we see that, rather than serve those who usurped the country, they chose to live where the food was beyond their natural powers, and could be eaten only by such a preparation of their teeth. It is possible that, in the absence of better arms, they reckoned upon these pointed teeth as weapons, in case their conquerors should follow them to their mountain home."

TABLE XXVII.

SUMMARY OF MEASUREMENTS.

KÂDIR MEN.

	Max.	Min.	Average.
Height	169·4	148·6	157·7
Height, sitting	85·4	70·4	80·8
Height, kneeling	124	109	116·3
Height to gladiolus	126·6	109·2	117·4
Span of arms	184	158·8	168·8
Chest	87·5	74·5	80·5
Middle finger to patella	14·4	6·8	10·7
Shoulders	41·9	36·5	38·8
Cubit	49·1	41·8	45·1
Hand, length	19·5	16·7	17·8
Hand, breadth	8·2	7	7·5
Hips	25·5	22·5	24·1
Foot, length	26·3	21·9	23·8
Foot, breadth	9·1	7·4	8·3
Cephalic length	19·4	17·2	18·4
Cephalic breadth	13·8	12·5	13·4
Cephalic index	80	69·1	73·9
Bigoniac	11	9·1	10
Bisygomatic	13·6	12	12·9
Maxillo-sygomatic index	84·6	70·7	77·4
Nasal height	4·8	3·8	4·3
Nasal breadth	4·5	3·2	3·9
Nasal index	115·4	72·9	89·8

NOTE.—In this and the following tables the measurements are in centimetres.

TABLE XXVIII.

SUMMARY OF MEASUREMENTS.

KÄDIR WOMEN.

	Max.	Min.	Average.
Height	149	133	143
Height, sitting	78.4	69	73.3
Height, kneeling	110.1	98.8	106.2
Span of arms	159	138.8	149.8
Shoulders	36.3	30.6	33.8
Hand, length	16.8	14.7	16.1
Hand, breadth	6.9	5.9	6.6
Foot, length	22.1	19.2	20.8
Foot, breadth	7.6	6.1	7
Cephalic length	18	15.8	17.3
Cephalic breadth	13.4	12.4	12.8
Cephalic index	79.1	71.6	74.2
Bigoniac	10	8.8	9.8
Bisygomatic	12.8	11.4	12
Maxillo-zygomatic index	83.3	72.6	77
Nasal height	4.4	3.2	3.9
Nasal breadth	3.9	3.2	3.4
Nasal index	100	77.8	86

MALAIĀLIS OF THE SALEM DISTRICT.

EXCEPT from a climatic point of view, I have no pleasurable recollections of my sojourn on two occasions among the Malaialis, who dwell on the summit and slopes of the Shevaroy hills, and earn their living by cultivating grain and working on coffee estates. Suspicious and superstitious to a degree, they openly expressed their fear that I was the dreaded settlement officer, and had come to take possession of their lands in the name of the Government, and transport them, with their wives and families, to the penal settlement in the Andaman Islands. When I was engaged in the innocent occupation of photographing a village, my camera was mistaken for a surveying instrument, and a mild protest raised. Mistaking my motive, they objected strongly to being examined as to their "manners and customs." Many of them, while willing to part with their ornaments of the baser metals, were loth to sell or let me examine their gold and silver jewelry, from fear lest I should use it officially as evidence of their too prosperous condition. Only with great difficulty, and through the kindly assistance of my planter friends, was I enabled to scrape together fifty men for measurement. One man, indeed, told me to my face that he would rather have his throat cut than submit to the measuring operations, and fled precipitately from my bed-room (doing duty as an impromptu research laboratory), which was pervaded with a distinct Malaiali aroma. The women stolidly refused to entrust themselves in my hands. Nor would they bring their children (unwashed specimens of humanity) to me, lest they should fall sick under the influence of my mild, but to them evil eye. And it was only through the intervention of the Native revenue officer (tahsildar) that I was enabled to snap the group represented in plate XXXII, just as a thunder-storm burst over the throng collected at the weekly shandy (market).

In the account which follows I am, except as regards physical records, largely indebted to Mr. H. LeFanu's admirable and at times amusing 'Manual of the Salem District,' and to the answers to a series of ethnographic

questions, which had been recently circulated through the Collector of the district.

The word Malaiaḷi denotes inhabitant of the hills (malai = hill or mountain). The Malaiaḷis have not, however, like the Todas of the Nilgiris, any claim to be considered as an ancient hill tribe, but are a Tamil-speaking people, who migrated from the plains to the hills in comparatively recent times. As a shrewd, but unscientific observer put it concisely to me, they are Tamils of the plains with the addition of a kambli or blanket; which kambli is a luxury denied to the females, but does duty for males, young and old, in the triple capacity of great coat, water-proof, and blanket. According to tradition, the Malaiaḷis originally belonged to the Vellāla caste of cultivators, and emigrated from the sacred city of Kāñchipūram (Conjeeveram) to the hills about ten generations ago, when Muhammadan rule was dominant in Southern India. When they left Kāñchi, they took with them, according to their story, three brothers, of whom the eldest came to the Shevaroy hills, the second to the Kollimallais, and the youngest to the Pachaimallais (green hills), all in the Salem district. The Malaiaḷis of the Shevaroy hills are called the Peria (big) Malaiaḷis, those of the Kollimallais the Chinna (little) Malaiaḷis. According to another version "the Malaiaḷi deity Karirāman, finding himself uncomfortable at Kāñchi, took up a new abode. Three of his followers, named Perianan, Naduvanan, and Chinnan (the eldest the middle-man, and the youngest) started with their families to follow him from Kāñchi, and came to the Salem district, where they took different routes, Perianan going to the Shevaroy hills, Naduvanan to the Pachaimallais and Anjūr hills, and Chinnan to Manjavādi."

The Malaiaḷis of the Shevaroy hills all have Goundan as their second name, which is universally used in hailing them. The first name is sometimes derived from a Hindu deity, and my notes record Mr. Black, Mr. Green, Mr. Little, Mr. Short, Mr. Large, and Mr. Big-nose.

As regards the conditions under which the Malaiaḷis hold land, I learn from the Manual that, in 1866, the Collector of the Salem district fixed an area around each village for the cultivation of the Malaiaḷis exclusively, and, in view to prevent aggression on the part of the planters, had the boundaries of these areas surveyed and demarcated. This area is known as the "village green." With this

survey the old system of charging the Malaïālis on ploughs and hoes appears to have been discontinued, and they are now charged at one rupee per acre on the extent of their holdings. The lands within the green are given under the ordinary darakhāst¹ rules to the Malaïālis, but outside it they are sold under the special waste land rules of 1863. In 1870 the Board of Revenue decided that, where the lands within the green are all occupied, and the Malaïālis require more land for cultivation, land outside the limits of the green may be given them under the ordinary darakhāst rules. In 1871 it was discovered that the planters tried to get lands outside the green by making the Malaïālis first apply for it, thereby evading the waste land rules. The Board then ordered that, if there was reason to suspect that a Malaïāli was applying for lands outside the green on account of the planters, the patta (deed of lease) might be refused.

Subscribing vaguely to the Hindu religion, the Malaïālis, who believe that their progenitors wore the sacred thread, give a nominal allegiance to both Siva and Vishnu, as well as to a number of minor deities, and believe in the efficacy of a thread to ward off sickness and attacks by devils or evil spirits. "In the year 1852," Mr. LeFanu writes, "a searching enquiry into the traditions, customs, and origin of these Malaïālis was made, and probably nothing more is to be ascertained. They then stated that 'smearing the face with ashes indicates the religion of Shiva, and putting nāmam that of Vishnu, but that there is no difference between the two religions; that, though Sivarātri sacred to Shiva, and Strirāmanavami and Gokālashtami sacred to Vishnu, appear outwardly to denote a difference, there is really none.' Though they observe the Saturdays of the month Peratāsi sacred to Vishnu, still worship is performed without reference to Vishnu or Shiva. They have, indeed, certain observances, which would seem to point to a division into Vaishnavas and Saivas, the existence of which they deny; as for instance, some, out of respect to Shiva, abstain from sexual intercourse on Sundays and Mondays; and others, for the sake of Vishnu, do the same on Fridays and Saturdays. So, too, offerings are made to Vishnu on Fridays and Saturdays, and to Shiva on

¹ Darakhāst: application for land for purposes of cultivation; or bid at an auction.



GROUP OF MALAIALIS.

Sundays and Mondays; but they denied the existence of sects among them."

In April, 1896, I paid a visit to the picturesquely-situated village of Kiliūr, not far distant from the town of Yercaud, on the occasion of a religious festival. The villagers were discovered, early in the morning, painting pseudo-sect-marks on their foreheads with blue and pink coal-tar dyes, with the assistance of hand looking-glasses of European manufacture purchased at the weekly market, and decorating their turbans and ears with the leafy stems of *Artemisia austriaca*, var. *orientalis*, and hedge-roses. The scene of the ceremonial was in a neighbouring sacred grove of lofty forest trees, wherein were two hut temples, of which one contained images of the goddess Draupādi and eight minor deities, the other images of Perumāḷ and his wife. All the gods and goddesses were represented by human figures of brass and clay. Two processional cars were gaily decorated with plantain leaves and flags, some made in Germany. As the villagers arrived, they prostrated themselves before the temples, and whiled away the time, till the serious business of the day began, in gossiping with their friends, and partaking of light refreshment purchased from the fruit and sweet-meat sellers, who were doing a brisk trade. At 10 A.M. the proceedings were enlivened by a band of music, which played at intervals throughout the performance, and the gods were decorated with flowers and jewelry. An hour later, pūja (worship) was done to the stone image of the god Vignaswaram, in the form of a human figure, within a small shrine built of slabs of rock. Before this idol cooked rice was offered, and camphor burnt. Then plantain stems, with leaves, were tied to a tree in the vicinity of the temples, and cooked rice and cocoanuts placed beneath the tree. A man holding a sword, issued forth, and, in unison with the collected assemblage, screamed out "Govinda, Govinda" (the name of their god). The plantain stems were next removed from the tree, carried in procession with musical honours, and placed before the threshold of one of the temples. Then some men appeared on the scene to the cry of "Govinda," bearing in one hand a light, and ringing a bell held in the other. Holy water was sprinkled over the plantain stems, and pūja done to the god Perumāḷ by offering sāmāi (grain) and burning camphor. Outside one of the temples a cloth was spread on

the ground, and the images of Draupādi and the eight minor deities placed thereon. From the other temple Perumāḷ and his wife were brought forth in state, and placed on the two cars. A yellow powder was distributed among the crowd, and smeared over the face. A cocoanut was broken, and camphor burnt before Perumāḷ. Then all the gods, followed by the spectators, were carried in procession round the grove, and a man, becoming inspired and seized with a fine religious frenzy, waved a sword wildly around him, but with due respect for his own bodily safety, and pointed it in a threatening manner at the crowd. Asked, as an oracle, whether the omens were propitious to the village, he gave vent to the oracular (and true) response that for three years there would be a scarcity of rain, and that there would be famine in the land, and consequent suffering. This performance concluded, a bamboo pole was erected, bearing a pulley at the top, with which cocoanuts and plantains were connected by a string. By means of this string the fruits were alternately raised and lowered, and men, armed with sticks, tried to hit them, while turmeric water was dashed in their faces just as they were on the point of striking. The fruits, being at last successfully hit, were received as a prize by the winner. The gods were then taken back to their temples, and three men, overcome by a mock convulsive seizure, were brought to their senses by stripes on the back administered with a rope by the pujāri (officiating priest). A sheep being produced, mantrams (prayers) were recited over it. The pujāri, going to a pool close by, bathed, and smeared turmeric powder over his face. A pretence was made to cut the sheep's throat, and blood drawn with a knife. The pujāri, after sucking the blood, returned to the pool and indulged in a ceremonial ablution, while the unhappy sheep was escorted to the village, and eventually eaten at a banquet by the villagers and their guests.

To Mr. W. Mahon Daly I am indebted for the following account of a Malaiāli bull dance, at which he was present as an eye witness. "It is the custom on the Shevaroy hills, as well as in the plains, to have a bull dance after the pongul festival, and I had the pleasure of witnessing one in a Malaiāli village. It was held in an open enclosure called the munthay. This piece of land adjoins the village, and faces the Mariamma (goddess of small-pox) shrine, and is the place of resort on festive occasions. The village panchāyats (councils), marriages, and other ceremonies are

held here. On our arrival, we were courteously invited to sit under a wide spreading fig-tree. The bull dance would literally mean a bull dancing, but I give the translation of the Tamil 'yerothoo-attum', the word attum meaning dance. This is a sport which is much in vogue among the Malaialis, and is celebrated with much éclat immediately after pongul, this being the principal festival observed by them. No doubt they have received the custom from those in the plains. A shooting excursion follows as the next sport, and, if they be so fortunate as to hunt down a wild boar or deer, or any big game, a second bull dance is got up.

"We were just in time to see the tamasha (spectacle). The munthay was becoming crowded, a regular influx of spectators, mostly women arrayed in their best cloths, coming in from the neighbouring villages. These were marshalled in a circle round the munthay, all standing. I was told that they were not invited, but that it was customary for them to pour in of their own accord when any sports or ceremonial took place in a village; and the inhabitants of the particular village were prepared to expect a large company, whom they fed on such occasions. After the company had collected, drums were beaten, and the long brass bugles were blown; and, just at this juncture, we saw an elderly Malaiali bring from his hut a coil of rope made of leather, and hand it over to the pujari or priest in charge of the temple. The latter placed it in front of the shrine, worshipped it thrice, some of the villagers following suit, and, after offering incense, delivered it to a few respectable village men, who in turn made it over to a lot of Malaiali men, whose business it was to attach it to the bulls. This rope the oldest inhabitant of the village had the right to keep. The bulls had been previously selected, and penned alongside of the munthay, from which they were brought one by one, and tied with the rope, leaving an equal length on either side. The rope being fixed on, the bull was brought to the munthay, held on both sides by any number who were willing, or as many as the rope would permit. More than fifteen on either side held on to a bull, which was far too many, for the animal had not the slightest chance of making a dart or plunge at the man in front, who was trying to provoke it by using a long bamboo with a skin attached to the end. When the bull was timid, and avoided his persecutors, he was hissed and hooted by those behind, and, if these modes of provocation failed to rouse

his anger, he was simply dragged to and fro by main force, and let loose when his strength was almost exhausted. A dozen or more bulls are taken up and down the munthay, and the tamasha is over. When the munthay happens to have a slope, the Malaialis have very little control over the bull, and, in some instances, I have seen them actually dragged headlong to the ground at the expense of a few damaged heads. The spectators, and all the estate coolies who were present, were fed that night, and slept in the village.

"If a death occurs in the village a few days before the festival, I am told that the dance is postponed for a week. This certainly, as far as I know, is not the custom in the plains."

A very tame affair is this bull dance, when compared with the buffalo 'drive' at a Toda funeral², or the bull baiting (jellikattu) practised chiefly by the Maravan and kindred castes, which is thus graphically described by Mr. J. H. Nelson:³ "This is a game worthy of a bold and free people, and it is to be regretted that certain Collectors should have discouraged it under the idea that it was somewhat dangerous. The jellikattu is conducted in the following manner:—On a certain day large crowds of people, chiefly males, assemble together in the morning in some extensive open place, the dry bed of a river perhaps, or of a tank (pond), and many of them may be seen leading ploughing bullocks, of which the sleek bodies, and rather wicked eyes, afford clear evidence of the extra diet they have received for some days in anticipation of the great event. The owners of these animals soon begin to brag of their strength and speed, and to challenge all and any to catch and hold them: and in a short time one of the beasts is selected to open the day's proceedings. A new cloth is made fast round his horns, to be the prize of his captor, and he is then led out into the middle of the arena by his owner, and there left to himself, surrounded by a throng of shouting and excited strangers. Unaccustomed to this sort of treatment, and excited by the gestures of those who have undertaken to catch him, the bullock usually lowers his head at once, and charges wildly into the midst of the crowd, who nimbly run off on either side to make way for him. His

² *Ville Bull.* No. IV, 1896.

³ 'Manual of the Madure District,' 1868.

speed being much greater than that of the men, he soon overtakes one of his enemies and savagely makes at him, to toss him. Upon this the man drops on the sand like a stone, and the bullock, instead of goring him, leaps over his body, and rushes after another. The second man drops in his turn, and is passed like the first; and, after repeating this operation several times, the beast either succeeds in breaking the ring and galloping off to his village, charging every person he meets on the way, or is at last caught, and held by the most vigorous of his pursuers. Strange as it may seem, the bullocks never by any chance toss or gore any one who throws himself down on their approach; and the only danger arises from their accidentally reaching, unseen and unheard, some one who remains standing.

"After the first two or three animals have been let loose one after the other, two or three, or even half a dozen, are let loose at a time, and the scene becomes wildly exciting. The crowd sways violently to and fro in various directions in frantic efforts to escape being knocked over; the air is filled with shouts, screams and laughter, and the bullocks thunder over the plain as fiercely as if blood and slaughter were their sole occupation. In this way perhaps two or three hundred animals are run in the course of the day; and, when all go home towards evening, a few cuts and bruises, borne with the utmost cheerfulness, are the only evil results of an amusement which requires great courage and agility on the part of the competitors for the prizes—that is for the cloths and other things tied to the bullocks' horns—and not a little on the part of the mere by-standers. The only time I saw this sport (from a place of safety) I was highly delighted with the entertainment, and no accident occurred to mar my pleasure. One man, indeed, was slightly wounded in the buttock: but he was quite able to walk, and seemed to be as happy as his friend."

To return to the Malaiālis. The man of highest rank is the guru, who is invited to settle disputes in villages, to which he comes, on pony-back or on foot, with an umbrella over him, and accompanied by music. The office of guru is hereditary, and, when he dies, his son succeeds him, unless he is a minor, in which case the brother of the deceased man steps into his shoes. If, in sweeping the hut, the broom touches any one, or when a Malaiāli has been kicked by a European or released from prison, he must be

received back into his caste. For this purpose he goes to the guru, who takes him to the temple, where a screen is put up between the guru and the applicant for restoration of caste privileges. Holy water is dedicated to the swāmi (God) by the guru, and a portion thereof drunk by the man, who prostrates himself before the guru, and subsequently gives a feast of pork, mutton, and other delicacies. The Malaīālis, it may be noted, will eat sheep, pigs, fowls, various birds, and black monkeys.

Each village has its own headman, an honorary appointment, carrying with it the privilege of an extra share of the good things, when a feast is being held. A kangāni is appointed to do duty under the headman, and receives annually from every hut two ballams of grain. When disputes occur, *e.g.*, between two brothers regarding a woman or partition of property, the headman summons a panchāyat (village council), which has the power to inflict fines in money, sheep, etc., according to the gravity of the offence. For every group of ten villages there is a patta-kāram (head of a division), who is expected to attend on the occasion of marriages and car festivals. A bridegroom has to give him eight days before his marriage a rupee, a packet of betel-nut, and half a measure of nuts. Serving under the patta-kāram is the mānia keeran, whose duty it is to give notice of a marriage to the ten villagers, and to summon the villagers thereto. Among the Peria Malaīālis weddings take place on Wednesday and Thursday in the month Chittaray (April-May). For eight days before the ceremony, bride and bridegroom must anoint themselves with turmeric paste.

In the auspicious month of April, 1898, on the receipt of news of a wedding in a distant village, I proceeded thither through coffee estates rich with white flowers bursting into blossom under the grateful influence of copious thunder-showers. *En route*, a good view was obtained of the "Golden Horn," an overhanging rock with a drop of 1,000 feet, down which the Malaīālis swing themselves in search for honey. On the track through the jungle a rock, known from the fancied resemblance of the holes produced by weathering to hoof-marks, as the kudre panji (horse's foot-prints), was passed. Concerning this rock the legend runs that a horse jumped on to it at one leap from the top of the Shivarāyan hill, and at the next leap into the plains at the foot of the hills. The village, which was to be the

scene of the festivities, was, like other Malaiali villages, made up of detached bee-hive huts of bamboo, thatched with palm-leaves and grass, and containing a central room surrounded by a verandah,—the home of pigs, goats, and fowls. Other huts, of similar bee-hive shape, but smaller, were used as store-houses for the grain collected at the harvest season. These grain-stores have no entrance, and the thatched roof has to be removed to take out the grain for use. Tiled roofs, such as are common in the Badaga villages on the Nilgiris, are forbidden, as their use would be an innovation, which would excite the anger of the Malaiali gods. Huts built on piles contain the flocks, which, during the day, are herded in pens that are removable, and, by moving these pens from one place to another, the villagers manage to get the different parts of their fields manured. Round the whole village a low wall usually runs, and, close by, are the coffee, tobacco, and other cultivated crops. Outside the village, beneath a lofty tree, was a small stone shrine, capped with a stone slab, wherein were stacked a number of neolithic celts, which the Malaialis reverence as thunder-bolts fallen from heaven. On my arrival at the village, I learned that the bride was not expected to arrive from her own village till long after dark. "She has," said the headman, "a stomach, which must be fed before she comes here." I was, however, presented to the youthful and anxious bridegroom, who was already dressed up in his marriage finery, and stripped before the assembled villagers, in order that I might record his wedding garments. His entire body was enshrouded in a new Salem cotton cloth with silk-woven border, and a clean white turban and coloured cotton langūti completed the clothing. For jewelry he wore gold ornaments in each helix, and a marriage hoop ornament of gold encircling each ear, a heavy silver necklet, five rows of silver armlets on the right upper arm, and a silver chain round his hips. Fingers and toes were decorated with silver rings. The neck was smeared with chunam (lime), and the chest and abdomen daubed with symbolical marks in turmeric. Unfortunately, the arrival of a case of cholera in the village gave rise to a hitch in the proceedings, and I had to rely on native evidence for details of the marriage ceremonial. On the first day, the bridegroom, accompanied by his relations, takes the modest dowry of grain and money (usually five rupees) to the bride's village, and arranges for the performance of the nalungoo ceremony on the following

day. If the bride and bridegroom belong to the same village, this ceremony is performed by the pair seated on a cot. Otherwise it is performed by each separately. The elders of the village take a few drops of castor-oil, and rub it into the heads of the bride and bridegroom; afterwards washing the oil off with poonac and alum water. One of the elders then dips betel-leaves and arugum-pillu (*Cynodon Dactylon*) in milk, and with them describe a circle round the heads of the young couple, who do obeisance by bowing their heads. The proceedings wind up with a feast of pork and other luxuries. On the following day the ceremony of tying the tali (marriage emblem) round the bride's neck is performed. The bride, escorted by her party, comes to the bridegroom's village, and remains outside it, while the bridegroom brings a light, a new mat, and three bundles of betel-nut and half a measure of nuts, which are distributed among the crowd. The happy pair then enter the village, accompanied by music. Beneath a pandal there is a stone, representing the god, marked with the nāmam, and decorated with burning lamps and painted earthen pots. Before this stone the bride and bridegroom seat themselves in the presence of the guru, who is seated on a raised dais. Flowers are distributed among the wedding guests, and the tali, made of gold, is tied round the bride's neck. This done, the feet of both bride and bridegroom are washed with alum water, and presents of small coin received. The contracting parties then walk three times round the stone, before which they prostrate themselves, and receive the blessing of the assembled elders. The ceremony concluded, they go round the village, riding on the same pony. The proceedings again terminate with a feast. I gather that the bride lives apart from her husband for eleven or fifteen days, during which time he is permitted to visit her at meal times, with the object, as my interpreter expressed it, of "finding out if the bride loves her husband or not. If she does not love him, she is advised by the guru and head man to do so, because there are many cases in which the girls, after marriage, if they are matured, go away with other Malaialis. If this matter comes to the notice of the guru, she says that she does not like to live with him. After enquiry, the husband is permitted to marry another girl."

A curious custom prevailing among the Malaialis of the Kollimallais, and illustrating the Hindu love of offspring, is thus referred to by Mr. LeFanu: "The sons, when mere

children, are married to mature females, and the father-in-law of the bride assumes the performance of the procreative function, thus assuring for himself and his son a descendant to take them out of 'Put.' When the putative father comes of age, and in their turn his wife's male offspring are married, he performs for them the same office which his father did for him. Thus, not only is the religious idea involved in the words *Putra* and *Kumāran*⁴ carried out, but also the premature strain on the generative faculties, which this tradition entails, is avoided. The accommodation is reciprocal, and there is something on physiological grounds to recommend it." Concerning this custom the Rev. H. N. Hutchinson writes as follows:⁵ "A man who has young sons, mere children, takes new wives for himself, who are, however, called his sons' wives, and the children they bear to him are called his sons' children, and so it goes on from one generation to another. This appears to be a relic of what is called the matriarchal system, which still prevails in various countries, as once in India." Widow re-marriage among the Peria Malaiālis is, I am informed, forbidden, though widows are permitted to contract irregular alliances. But, writing concerning the Malaiālis of the Dharmapuri taluk (division) of the Salem district, Mr. LeFanu states that: "It is almost imperative on a widow to marry again. Even at eighty years of age, a widow is not exempted from this rule, which nothing but the most persistent obstinacy on her part can evade. It is said that, in case a widow be not re-married at once, the Pattakār sends for her to his own house, to avoid which the women consent to re-enter the state of bondage." Of the marriage customs of the Malaiālis of the Javādi hills the same author writes that "these hills are inhabited by Malaiālis, who style themselves Vellālars and Pachai Vellālars, the latter being distinguished by the fact that their females are not allowed to tattoo themselves, or tie their hair in the knot called 'kondai'. The two classes do not intermarry. In their marriage ceremonies they dispense with the service of a

⁴ *Putra* means literally "one who saves from put," a hell into which those who have not produced a son fall. Hindus believe that a son can, by the performance of certain rites and ceremonies, save the souls of his ancestors from this place of torture. Hence the anxiety of every Hindu to get married, and beget male offspring. *Kumāran* is the second stage in the life of an individual, which is divided into infancy, childhood, manhood, and old age.

⁵ 'Marriage Customs in many Lands,' 1897.

Brāhman. Monday is the day chosen for the commencement of the ceremony, and the tali is tied on the following Friday, the only essential being that the Monday and Friday concerned must not follow new moon days. They are indifferent about choosing a 'lakkinam' (muhūrtham or auspicious day) for the commencement of the marriage, or for tying the tali. Widows are allowed to re-marry. When a virgin or a widow has to be married, the selection of a husband is not left to the woman concerned, or to her parents. It is the duty of the Ūrgoundan to inquire what marriageable women there may be in the village, and then to summon the pāttan, or headman of the caste, to the spot. The latter, on his arrival, convenes a panchāyat of the residents, and, with their assistance, selects a bridegroom. The parents of the happy couple then fix the wedding day, and the ceremony is performed accordingly. The marriage of a virgin is called 'kaliānam' or 'marriage proper'; that of a widow being styled 'kattigiradu' or 'tying' (cf. Anglice noose, nuptial knot). Adultery is regarded with different degrees of disfavour according to the social position of the co-respondents. If a married woman, virgin or widow, commits adultery with a man of another caste, or if a male Vellālan commits adultery with a woman of another caste, the penalty is expulsion from caste. Where, however, the paramour belongs to the Vellāla caste, a caste panchāyat is held, and the woman is fined Rs. 3-8-9, and the man Rs. 7. After the imposition of the fine, Brāhman supremacy is recognised, the guru having the privilege of administering the 'tirtam', or holy water, to the culprits for their purification. For the performance of this rite his fee varies from 4 annas to 12 rupees. The tirtam may either be administered by the guru in person, or may be sent by him to the nattan for the purpose. The fine imposed on the offenders is payable by their relatives, however distant; and, if there be no relatives, then the offenders are transported from their village to a foreign country. Where the adulteress is a married woman, she is permitted to return to her husband, taking any issue she may have had by her paramour. In special cases a widow is permitted to marry her deceased husband's brother. Should a widow re-marry, her issue by her former husband belongs to his relatives, and are not transferable to the second husband. The same rule holds good in successive re-marriages. Where there may be no relatives of the deceased husband forthcoming to

take charge of the children, the duty of caring for them devolves on the Ūrgoundan, who is bound to receive and protect them. The Vellalars generally bury their dead, except in cases where a woman quick with child, or a man afflicted with leprosy has died, the bodies in these cases being burnt. No ceremony is performed at child-birth; but the little stranger receives a name on the fifteenth day. When a girl attains puberty, she is relegated for a month to a hut outside the village, where her food is brought to her during that period, and she is forbidden to leave the hut either day or night. The same menstrual and death customs are observed by the Peria Malaialis, who bury their dead in the equivalent of a cemetery, and mark the site by a mound of earth and stones. At the time of the funeral, guns are discharged by a "firing party," and, at the grave, handfulls of earth are, as at a Christian burial service, thrown over the corpse.

The Malaialis of the Shevaroy hills snare with nets, and shoot big game—deer, leopards, tigers, bears, and pigs—with guns of European manufacture; and Mr. LeFann narrates that, during the pongal feast, all the Malaialis of the Kalrayans go a hunting, or, as they term it, for 'par vēttai.' "Should the Pālaiagar fail to bring something down, usage requires that the pujāri should deprive him of his kudimi or top-knot. He generally begs himself off the personal degradation, and a servant undergoes the operation in his stead."

In games the Malaialis seem to be deficient, and, despite the manual labour which work on coffee estates and their own lands imposes on them, they are wanting in muscular development. "How", said the possessor of a miserable hand-grip of 48 lbs. in reply to a question, "can any of us be strong, when we have to work all day for the European"? A rough-and-tumble game, resembling prisoner's base, called sathurappāri vilayattu, is played in a square court, of which the lines are marked by means of the feet in the dust, with water on moonlight nights, or with chunām (lime wash) in mimicry of the lines of a lawn-tennis court. The players, eight in number, divide into an in and out side. The square is defended at the corners by the former, while the latter try to force their way within the lines.

The finest specimen of a Peria Malalali, which I have seen, was a man, aged 25, named Dāsan Goundan, working on a coffee estate, whose record was as follows :—

		Malaiali. average.
Weight	157 lbs.	99 lbs.
Height	173·2 cm.	163·4 cm.
Span of arms ..	179·8 „	172·1 „
Chest	93·5 „	79·7 „
Shoulders	42·6 „	38·5 „
Hips	27 „	35·5 „
Foot, length ..	26·7 „	25·3 „

The leading characteristics of the Malaialis, and their personal adornment are summed up in the following cases :—

1. Man, æt. 25. A lean and long-legged individual with very thin calves. Height 164 cm. Hair of head clipped short on top, long and tied in a knot behind. Diffuse hairs over middle of chest. Median strip of hairs on abdomen. Clothing consists of white turban decorated with roses, brown kambli (blanket) with white border pattern, dhāti and langūti. Bag containing betel-leaf and tobacco slung over left shoulder. Carries bill-hook and gourd water-vessel. Coffee walking stick. Silver belt round loins. Brass ring in lobe of each ear and gold ornament in left helix. Silver bangle on each wrist. Two silver rings on right ring and little fingers. Silver ring on such second toe.

2. Man, æt. 30. Will not sit on a chair to have his head measured, as it would be disrespectful, and make his god angry. No objection to standing upon it. Hair extensively developed over chest, abdomen, shoulders, back and extensor surface of fore-arms. Silver belt round loins. Silver armlet on right upper arm, and bangle on each wrist. Three silver rings on right ring finger. Two silver rings on right little finger. Silver ring on each second toe. Stores his money away in the hollow bamboos of his hut.

3. Man, æt. 25. Brass ring in left nostril. Four brass rings in right ear lobe ; two in left. Two silver rings on right third finger.

4. Man, æt. 28. Caste spots on forehead and root of nose, painted with coal-tar magenta dyes. Smeared with

chunam (lime) over both deltoids, chest and neck. Mutton-chop whiskers and billy-goat beard.

5. Man, æt. 30. Woollen anklet round left ankle, worn as a charm to drive away pain.

6. Man, æt. 26. Wooden plug in lobe and helix of each ear.

7. Man, æt. 26. Blue sect spot on forehead and blue line in mid-frontal region. Wooden plug in lobe of each ear. Gold ornament in left helix. Silver bangle on right wrist. Two silver rings on right ring and little fingers. Two brass rings on left little finger. Silver ring on left second toe.

Little girl. Gold ornament in right nostril. Silver and bead necklets. Tattooed (blue) with mark like masonic compasses on forehead, circle surrounded by ring of dots on right cheek, sun and half moon on left cheek, spot on chin, and unknown symbols outside orbits. Tattooing is done by Korava women, who come on circuit from the plains about once a month. The devices on the face constitute distinctive tribal marks. Gold ornament in right nostril. Silver and bead necklets. Two leaden bangles on right wrist, and a single leaden bangle on left wrist. Two silver rings on left fore-finger. Two brass rings on left second finger.

Woman, æt. 35. Tattooed with the same symbols as the preceding on forehead and outside orbits. Sun and half moon on right cheek. Rayed circle on left cheek. Scorpion on metacarpus of right thumb. Elaborate geometrical and conventional devices, as among women of the plains, over right deltoid, both fore-arms, and back of left hand. Gold ornament in each ear lobe, and in helix, the latter connected with a silver link chain fixed into back hair, which is tied in a bunch. Gold ring in right nostril, and gold ornament in left nostril. Gold tali tied with string round neck. Silver and bead necklets with tooth-pick and ear-scoop pendent. Two silver armlets on right upper arm. Leaden bangle on right wrist. One leaden, and two composition bangles on left wrist. Silver ring on each second toe. Sári (dress) made of florid imported printed cotton. Smokes tobacco of local cultivation, wrapped in a leaf of *Gmelina arborea*.

The averages of my Malaiali measurements are, in Table XXX, compared with those of two of the Tamil classes of Madras City (Vellalas and Pallis) and support the theory that the Malaialis emigrated from the Tamil-speaking area of the plains at no very remote period.

TABLE XXIX.

SUMMARY OF MEASUREMENTS.

MALAIÁLIS. 50.

	Max.	Min.	Average.
Weight	120	87	99
Height	173·2	153·2	163·4
Height, sitting	87·2	77·1	82
Height, kneeling	125·7	111·4	120
Height to gladiolus	131	112·8	122·7
Span of arms	188·6	161	172·1
Chest	90	74	79·7
Middle finger to patella ...	14·8	6·4	10·8
Shoulders	43·2	35·1	38·5
Cubit	50·2	43·1	46·6
Hand, length	19·6	16	17·8
Hand, breadth	9·1	7·4	8·1
Hips	27·2	23·6	25·5
Foot, length	26·9	23·1	25·3
Foot, breadth	10·1	8·1	8·8
Cephalic length	19·3	16·9	18·3
Cephalic breadth	14·6	12·8	13·6
Cephalic index	82·8	61	74·3
Bigoniac	10·8	8·2	9·6
Bisymphatic	13·9	11·7	12·7
Maxillo-symphatic index ...	85·2	65·6	75·8
Nasal height	5·2	3·9	4·6
Nasal breadth	4·1	3	3·5
Nasal index	100	63·8	77·8

TABLE XXX.

SUMMARY OF MEASUREMENTS OF MALAIÁLIS,
VELLÁLAS, AND PALLIS.

	Vellálas.	Malaiális.	Pallis.
Weight	108·3	99	104·6
Height	162·4	163·4	162·5
Height, sitting	83·4	82·1	83·6
Height, kneeling	119·3	120	118·8
Height to gladiolus	121·9	122·8	121·5
Span of arms	174·1	172·1	172·6
Chest	79·8	79·7	79·2
Middle finger to patella	10·4	10·8	9·5
Shoulders	39·7	38·5	39·4
Cubit	46·9	46·6	46·2
Hand, length	18·3	17·8	17·9
Hand, breadth	8·2	8·1	8·1
Hips	25·6	25·5	25·5
Foot, length	25·7	25·3	25·5
Foot, breadth	8·7	8·8	8·9
Cephalic length	18·6	18·3	18·6
Cephalic breadth	13·8	13·6	13·6
Cephalic index	74·1	74·3	73
Bignonio	10	9·6	9·9
Bisymphatic	12·9	12·7	12·7
Maxillo-symphatic index	76·7	75·8	78
Nasal height	4·7	4·6	4·6
Nasal breadth	3·4	3·5	3·6
Nasal index	73·1	77·8	77·9

SYLLABUS OF A COURSE OF DEMONSTRATIONS ON PRACTICAL ANTHROPOLOGY GIVEN AT THE MUSEUM, OCTOBER 1898.

DEMONSTRATIONS primarily for the benefit of students in the University classes of History, which, as laid down by the local University, includes some knowledge of ethnology and comparative philology. No facilities for practical instruction at the colleges. Questions in examination papers, bearing on the cephalic index and body measurements, which cannot be answered in a style worthy of Degree examination by candidates who have not seen practical application of methods on skull and living subject. Demonstrations, practical and semi-popular, to supplement theoretical knowledge acquired from books and lectures.

Anthropology, a branch of natural history, which treats of Man and the races of Man, conveniently separated into two main divisions :—

(a) Ethnography, which deals with man as a social and intellectual being, his “manners and customs,” knowledge of arts and industries, tradition, language, religion, etc.

Illustrations. Show-cases of tribal jewelry, models of dwelling-huts, implements, and photographs. Meriah sacrifice (buffaloes sacrificed at present day instead of human beings). Toda polyandry and female infanticide. Hook-swinging. Dravidian languages. Animistic religion of hill and forest tribes. Burial and cremation. Decline of indigenous weaving industry, and degeneration in Native female dress as result of imported colour-printed piece-goods.

(b) Anthropography, which deals with Man and the varieties or “species” of the human family from an animal point of view, his structure and the functions of his body.

Necessary for the purposes of study of anthropology, so far as Indian peninsula is concerned, to keep in mind three primary links of evidence :—

(a) Evidence of “prehistoric” people, bearing in mind that, like the geologist, the anthropologist does not reckon by days or years; and that “the 6,000 years (Creation said to

have occurred 4004 B.C.) which were till lately looked on as the sum of the world's age are to him but as a unit of measurement in the long succession of past ages." Pre-historic man in Southern India very largely represented by tumuli, cairns, cromlechs and kistvaens of Shevaroy, Palni, and Nilgiri mountain ranges; by the large earthenware burial urns or sarcophagi found at Pallávaram near Madras, in the Tinnevely district, etc.; and by the palæolithic and neolithic implements (celts, hammer-stones, scrapers, saws, etc.), concerning which Mr. R. Bruce Foote is preparing a catalogue raisonné based on his own and the museum collections.

Illustrations. Quartzite implements found in lateritic formation at Pallávaram; stone implements from the Bellary district and Shevaroy hills, stored by Natives in small shrines, and worshipped as thunderbolts fallen from heaven; earthenware sarcophagus, 105 cm. high, from Tinnevely; earthenware vessels impressed with rude ornamentation. Models of large-horned buffaloes, birds, fabulous animals, and bearded men on horseback, bronze vessels, and iron arrow or javelin heads, excavated on the Nilgiri hills. Evidence that Nilgiris were inhabited by a people earlier than the Todas, who possess not even the most elementary knowledge of arts and industries. Todas live on products of semi-feral buffalo, and by soliciting alms (inám) from European visitors to their mands. Pottery and human bones (heads and necks of femora) from Coimbatore district; pottery and chank shells (*Turbinella rapa*) from Guntakal.

(b) Evidence of oldest existing people, now confined to jungle tribes dispersed in small communities, for the most part in the jungles on the slopes of the mountains.

Examples: Irulas, Kurumbas, Kádirs, Paniyans, and Sholigas, all possessing two marked characters in common, viz. (a) shortness of stature; (b) short, broad nose with consequent high nasal index. "Aryans so impressed with the flat, snub noses of their enemies, that they often spoke of them as the noseless ones" (Risley).

				Average height. cm.	Average nasal index. cm.
Paniyans	..	..	..	157.4	95.1
Kádirs	..	..	..	157.7	89.8
Kurumbas	..	..	..	157.4	89.6
Irulas	..	..	..	159.8	84.9

▲▲

(c) Evidence of influence of immigration of foreign races, e.g., 'Aryans,' whose influence may, *mutatis mutandis*, be argued by analogy with influence of European immigration (Portuguese, Dutch, British, French, and Danish) on indigenous population of Southern India during last five centuries, with, as starting point, alliances between Portuguese adventurers under Albuquerque with Native women of Malabar.

Important division of anthropography is anthropometry, i.e., measurement and estimation of physical data relating to people belonging to different races, castes and tribes, by means of which their characteristics can be compared together. Anthropometry for purposes of criminal identification. Bertillonage. Measurements, to be relied on, must be taken by experts. Fingerprint records more reliable for criminal purposes.

As a means of gauging physique, three pieces of apparatus used in museum laboratory, viz., weighing machine, dynamometer, spirometer.

(a) Weighing machine. Record actual weight, and weight relatively to uniform stature of 100 cm. for purpose of comparison of different castes and tribes.

Examples :

				Average height.	Average weight.	Average weight relative to stature = 100.
				CM.	LBS.	LBS.
Brāhmans	(poorer	162·5	115	70·8		
classes).						
Pariahs	.. ..	162·1	106	65·4		
Pallis	.. ..	162·5	104·6	64·4		
Kammālans	.. ..	159·7	100·4	62·9		

European inhabitants of a hill station objected to my weighing local tribesmen in meat scales of butcher's shop.

(b) Spirometer, or gasometer, which records play of chest or vital capacity, i.e., total quantity of air, which can be given out by the most forcible expiration following on a most forcible inspiration. Play of chest of far greater importance than actual girth, as every one knows who has had to examine recruits or applicants for life-insurance. No use possessing a 40-inch chest if lungs emphysematous, and chest walls have not corresponding power of expansion and contraction.

(c) Hand-dynamometer for testing hand grip.

Examples :

	Average. LBS.
Europeans, Madras City	88
Sepoys, 28th Madras Infantry	80
Todas	79
Kotas	70
Eurasians (poorer classes), Madras City ..	65

Note that Todas, who do no manual labour, have a greater average grip than the Kotas of the Nilgiris, many of whom are blacksmiths or carpenters. Maximum recorded in Madras 113 lbs., Native musketry instructor 28th M.I.

Results of anthropometry depend essentially on calculation of averages. In small communities, *e.g.*, jungle-tribes, measurement of 20 to 25 subjects sufficient for all practical purposes. In larger communities, measurement of 40 subjects yields sufficiently accurate results. Necessary, when investigating Eurasians, to measure over a hundred individuals owing to great variation in stature and other characters. Women, as well as men, should be measured if possible. Not always easy to establish confidence among them. Two-anna pieces most effective means of conciliation, supplemented by cheroots for men, cigarettes for children, and, as a last resource, alcohol. Measuring appliances sometimes frighten the subjects, especially goniometer for determining facial angle, which is mistaken for an instrument of torture.

Before measuring individual, record notes on personal characteristics, ornaments, dress, etc.

(a) Name. May be derived from a god or goddess, personal characteristic, a colour, etc. Natives have equivalent of Mr. Black, Green, Short, Large, and further Mr. Big-nose, Mr. Brownish-black, and Mr. Greenish-blue.

(b) Age. Difficult to estimate accurately in uneducated classes, as, after childhood, they lose all count of age. In taking measurements of Europeans, limits of age 25 to 40. Useless to record measurements of individuals not fully developed, or of those who have begun to shrink from age. In dealing with Natives, I accept 40 as maximum and 20 as minimum. Development earlier in the east than in Europe.

(c) Skin-colour. Fair, as in high-caste Brāhmans, dark-brown, or even blackish-brown in some jungle-tribes, notably Irulas of Nilgiris, who are so dark that it has been

jestingly said, charcoal leaves a white mark on them. Skin-colour can be roughly described according to number on Broca's colour scale. Typical Dravidian brown colour not represented therein.

(d) **Tattooing.** Originally resorted to as ornament, and as a means of sexual attraction. In Samoa, for example, until a young man is tattooed, he cannot think of marriage. Tattooing in blue performed even on dark skins, on which blue is invisible, and original object of the practice lost. In South India tattooing conspicuously absent on west coast. In other parts pattern ranges from simple devices of dots, lines, and circles among women of hill-tribes to elaborate geometrical and conventional devices among women of the plains. Prevalence of religious symbols (chalice, dove, crucifix, sacred heart, etc.) among Eurasians of west coast. Most elaborate patterns executed by Burmese professional tattooers on Tamil emigrants to Burma.

(e) **Malformations.** Refer to pinched in feet of Chinese women, compression of infant skull among Peruvians, and effects of tight-lacing. Contrast Native female and European waists, undistorted foot of Native, and foot of European distorted by badly-fitting boots. In latter long axis of great toe not parallel to central axis of foot as in Natives.

Most characteristic malformations in Southern India :—

1. Circumcision, a Muhammadan practice, but, curiously enough, resorted to by Kallans of Madura district, and said to be survival of forcible conversion to Muhammadanism.

2. Dilatation of lobes of ears, which become, from stretching, as elastic as india-rubber, and sometimes snap across. Native Christian girls in Tinnevely have long ears operated on, and cut short at Mission hospital. Objection that short ears make them look like deva-dasis (dancing girls) dying out. In statues of Buddha, as far back as 2nd century A.D., ears dilated, but void of ornaments.

3. Chipping and filing of incisor teeth, practised by Kādīrs of Anaimalai hills. Practice common to some tribes in Africa and Malay Archipelago. Whence did Kādīrs inherit the custom?

4. Amputation of terminal phalanges of ring and little fingers, practised on women of Vakkaliga sect in Mysore. Operation performed when their children have the ear and nose-boring ceremony carried out.

Odour of skin. Missionary Hue could distinguish between smell of Tibetan, Hindu, Negro and Chinaman, by sense of smell. Characteristic odour of Todas. Mosquitoes mercilessly attack Europeans newly arrived in India. Old stagers comparatively free from attack, and said to be protected by smell of skin, which develops as result of climatic conditions, and is distasteful to mosquito.

Skin of body. Extent of development of hair and areas of distribution. Median strip of hair on abdomen common Dravidian type. Todas characterised by excessive development of hairy system, which may form thick fur on chest. Todas have this character in common with Australians and Ainus of Japan.

Hair of head, straight, wavy, curly, frizzly, or woolly. Woolly hair, in which little curls interlock, and form tufts resembling wool, characteristic of Negroes; curly or wavy of inhabitants of Southern India. Repeatedly asserted that Paniyans of Malabar woolly-haired, and of African descent. No evidence. Their hair curly, not woolly. Native hair universally black in adult; frequently light-brown in infancy. Mode of doing hair; dyeing with henna (leaves of *Lawsonia alba*). Photograph of Cheruman with hair in long matted plaits in observance of death ceremonial.

Colour of iris, or diaphragm of eye. Natives, as a rule, have dark eyes, but sometimes blue as inherited character. Badaga family, in which grandfather, father, and grandchildren all had light blue eyes. In Madras City two Native albinos with pink skin, white hair, and pink eyes, from absence of pigment.

Shape of face—long, narrow; short, broad; pyramidal, etc.

Nose. Shape when viewed in profile. Concave nose common among Dravidians, due to hollowing out of nasal bones.

Cheek-bones, flat or prominent. Prominence of cheek-bones, and obliquely-set eyes characteristic of Mongolians. Irulas of Nilgiris have prominent cheek-bones, but straight eyes.

Prominence of superciliary (brow) ridges. Characteristic of Neanderthal skull, Pithecanthropus, Australians, etc. Compare skull of higher ape with that of European. Tamil skulls with ridges well developed, and other Australian characters.

Lips, thin, thick, or everted. Photograph of Kadir with upper and lower lips conspicuously everted.

Lower jaw, prognathous or orthognathous, when viewed in profile.

Measurements recorded in centimetres and millimetres (2.54 cm. = 1 inch), divided into (a) essential; (b) accessory. Necessary, for purpose of comparison of various tribes and castes of Indian peninsula, to have notes on body-colour, and accurate statistics relating to body height, length and breadth of head, and height and width of nose. With these data to work on, easy to fit any tribe or caste in its correct place in the anthropological puzzle. Training necessary before measurements, *e.g.*, of nose and head, can be accepted. Accuracy most essential in smaller measurements. Anthropometric results based on average of sum of measurements of a number of individuals.

1. Standing height. Classification. Tall, 170 cm. and upwards; middle height 170—160 cm.; short 160 cm. and below. In South India no tall race, tribe, or caste, though Todas nearly reach this dignity (average 169.6 cm.). Compare heights on standard. Patagonians tallest, Stanley's dwarfs (African) shortest. Jungle tribes of South India are about same height as a number of Australians measured in Sydney. Standing height one of the measurements used for purposes of criminal identification.

Examples :

					Average. cm.
English	..	..	..	..	170.8
Todas	..	..	..	..	169.6
Eurasians	..	..	..	..	166.6
Brāhmins	..	..	..	..	162.5
Pariahs	..	..	..	..	161.9
Paniyans	..	..	..	..	157.4

2. Relative length of upper extremities, best determined by comparison of span of arms outspread at right angles to body with stature, and of distance from tip of middle finger to patella (knee-cap) in altitude of attention with extensor muscles of thigh relaxed.

Examples : Span of arms.

					Average relative to stature = 100.
Eurasians	..	..	..	..	103.6
Pariahs	..	..	..	..	106.2
Kadirs	..	..	..	..	107
Negroes	..	..	..	..	108.1

Examples : Middle finger to knee-cap.

					Average relative to stature = 100.
English	..	..	..	..	7.5
Brāhmans	..	..	..	..	6.2
Pariahs	..	..	..	..	5.8
Paniyans	..	..	..	..	4.6
Negroes ..	..	..	..	..	4.4

Hands of long-armed Rāma said, in Hindu epic, to have reached to his knees. Compare skeleton of Negro with that of Orang-utan, in which hands reach far below knees.

3. Chest. Physical rather than racial test. Measurement taken with tape over nipples with arms above head, and hands joined.

Examples :					Average relative to stature = 100.
Paniyans	..	..	..	..	51.8
Kādirs	..	..	..	..	51
Sepoys, 28th M.I.	..	..	..	..	50.4
Brāhmans	..	..	..	..	49.8
Pariahs	..	..	..	..	48.9

Paniyans and Kādirs (jungle-tribes), short of stature and deep-chested ; well adapted for mountaineering.

4. Hip-breadth. Measured across anterior spines of ilia (hip-bones). Ratio between breadth of hips and length of foot important as distinguishing character between races, castes, and tribes of Southern India. Frequently come across Natives with foot-length considerably greater than hip-breadth. In Europeans hip-breadth considerably in excess of foot-length.

Head measurements estimated with callipers and compasses.

5. Maximum length and breadth of head. Length from glabella or ophryon to occipital point. Breadth : greatest breadth across parietal bones. Easiest to measure, on living subject, heads clean-shaved in observance of religious ceremony, on which shape of head easily studied. Difficulty in measuring heads of Todas, whose dense locks offer obstacle to shifting of callipers in search for right spot.

Examples :

	Average.	
	Length. CM.	Breadth. CM.
Pariahs	18.6	13.7
Brāhmans (poorer classes).	18.6	14.2
Civil Servants, Madras ..	19.6	15.3
Other Europeans, Madras.	19.4	15

Ratio of length to breadth represented by cephalic index determined by formula.

$$\frac{\text{Breadth} \times 100.}{\text{Length.}}$$

More nearly breadth and length correspond, higher the index. Longer the head in proportion to breadth, lower the index. Heads range in type from long, narrow (dolichocephalic) to short, broad (brachycephalic). Intermediate type, mesaticephalic, common among half-breeds. Dolichocephalic type characteristic of Dravidians. Todas have longest, Brahmans broadest heads among Natives of Southern India. Character of Dravidian skull is absence of convexity of posterior portion of skull, with result that back of head forms a flattened arc of a considerable length almost at right angles to base of skull. Corresponding shortness of head and diminished brain-space. Compare series of Tamil skulls with those of European, Jew, etc. Cephalic indices, European 74.7; Tamil 74.4; Negro 72.5; Andamanese 83.2; Sinhalese 85.1; Burmese 86.6. Shape of skull does not necessarily indicate size of brain. Section of Negro skull with large bump on top caused by bony thickening and large frontal sinus. Relative sizes of brains, or cranial capacity, estimated on skull by plugging foramina (holes) with cotton wool, and filling up skull through foramen magnum (large hole at base) with small shot or mustard seed. Calculate by pouring shot or seed into glass vessel graduated in cubic centimetres. Estimate cubic capacity of skulls of various Dravidian classes.

6. Relation of greatest breadth of facial portion of head across zygomatic arches to greatest breadth of lower jaw (bigoniae).

$$\frac{\text{Bigoniae} \times 100}{\text{Zygomatic}} = \text{maxillo-zygomatic index.}$$

7. Facial angle. Estimated with goniometer. Some Natives object to holding it between their teeth, as being source of pollution. Diagrams of classic Greek head with forehead thrown forward, heads of Dravidian, Negro, and Chimpanzee. Facial angle of Dravidian averages from 67° to 70° . Dravidians as a whole orthognathous, *i.e.*, line of upper jaw more or less vertical when viewed in profile. Negro conspicuously prognathous, *i.e.*, upper jaw projects forwards, with corresponding lowering of facial angle. Measure true sub-nasal prognathism. Demonstrate facial angle of Brāhman and Negro skulls. Prognathism indicated on skull by basi-alveolar length, *i.e.*, distance between front of foramen magnum and alveolar point in centre of upper jaw. Show Tamil skull, possessing not only prominent superciliary ridges, but also well-marked prognathism. Australian affinities. Use of boomerang by Kullans and Maravans of Southern India. Refer to skulls of Man and ape, in which line drawn from glabella to basion indicates predominance of cranial or brain-bearing portion in former, and of facial portion of latter. Show sections of skull of horse and elephant, demonstrating small size of brain relatively to that of head.

8. Nose—facial feature, which is most likely to be transmitted from one generation to another. Nasal character, in India, most important factor in differentiation of race, tribe, and class, and in determination of pedigree from broad-nosed ancestors. Shape not so important as relation of height to breadth.

$$\frac{\text{Breadth} \times 100}{\text{Height}} = \text{Nasal index.}$$

Examples:

Brāhman.

$$\left. \begin{array}{l} \text{Height } 5.5 \text{ cm.} \\ \text{Breadth } 3.4 \text{ ,,} \end{array} \right\} \frac{3.4 \times 100}{5.5} = 61.8 = \text{nasal index.}$$

Paniyan.

$$\left. \begin{array}{l} \text{Height } 4 \text{ cm.} \\ \text{Breadth } 4 \text{ ,,} \end{array} \right\} \frac{4 \times 100}{4} = 100 = \text{do.}$$

Kurumba.

$$\left. \begin{array}{l} \text{Height } 3.8 \text{ cm.} \\ \text{Breadth } 4 \text{ ,,} \end{array} \right\} \frac{4 \times 100}{3.8} = 105.3 = \text{do.}$$

Nasal index lowest in Aryans, highest in jungle-tribes. Index increases as body height diminishes. High nasal index, and short stature of individuals belonging to various

castes and tribes, must be attributed to lasting influence of short, broad-nosed ancestor.

				Average	
				Height.	Nasal index.
				cm.	cm.
Lambadis (Aryan language)				164.5	69.1
Eurasians	..	..	..	166.6	69.5
Tiyans	..	..	..	163.7	75
Pariahs	..	..	..	162.1	80
Kurumbas	..	..	..	157.6	87
Paniyans	..	..	..	157.4	95.1

Contrast nasal indices on skulls of European, Tamil, and Negro. European 37.5; Tamil 57.8; Negro 60.9. In absence of nostrils, nasal index never nearly so high in skeleton as in living subject.

NOTE ON THE DRAVIDIAN HEAD.

I recently came across a passage in Taylor's 'Origin of the Aryans' (Contemporary Science Series), wherein it is stated that "the Todas are fully dolichocephalic, differing in this respect from the Dravidians, who are brachycephalic." As this statement is not in accord with my own observations, it is right that I should place on record the results obtained from the measurement of a large number of Native tribes and castes of Southern India other than Brāhmans and Muhammadans, which have been investigated by me in the course of the last few years. The figures, published below, show that the average cephalic index of 639 members of 19 different tribes and castes was 74·1; and that in only 19 out of the 639 individuals did the index exceed 80. So far, then, from the Dravidian being separated from the Todas by reason of their higher cephalic index, this index is, in the Todas, actually higher than in some of the remaining Dravidian peoples, *e.g.*, the Badagas, Pallis, Muppas, and Ambattans.

	Number of men examined.	Average cephalic index.	Number of times in which cephalic index exceeded 80.
Badagas	40	71·7	
Muppas	24	72·3	
Tiyans	60	72·8	1 (80·3)
Pallis	40	72·9	
Kādīrs	23	73	
Todas	25	73·3	1 (81·2)
Ambattans	29	73·4	
Cherumans	60	73·4	2 (80·1; 81·9)
Pariahs	40	73·6	
Paniyans	25	74	1 (81·1)
Kotas	25	74·1	
Vellālas	40	74·1	1 (81·1)
Malaialis	50	74·3	1 (82·8)
Malasars	23	74·5	
Kammālans	40	75	5 (80·1; 80·1; 80·2; 80·6; 81·5)
Kurubas	25	75·8	2 (80·1; 82·1)
Irulas	25	75·8	1 (80·9)
Kongas	20	77	2 (80·3; 81·7)
Koravas	25	77·5	3 (82·4; 83·7; 83·7)
	<hr/> 639	<hr/> 74·1	<hr/> 19 (max. 83·7).

57
2
18

(C. M. K. W. S.)

4

2 (82·5; 83·7)

THE DRAVIDIAN PROBLEM.

THE manifold views, which have been brought forward as to the origin and place in nature, of the indigenous population of Southern India, are scattered so widely in books, manuals, and reports, that it will be convenient, not only for my own purpose hereafter, but for the purpose of those interested in, or urged by the University syllabus into a pseudo-interest in the subject of South Indian ethnology, if I bring together the evidence derived from sundry authoritative sources.

The original name for the Dravidian family, it may be pointed out, was Tamulic, but the term Dravidian was substituted by Bishop Caldwell, in order that the designation Tamil might be reserved for the language of that name. Drávida is the adjectival form of Dravida, the Sanskrit name for the people occupying the south of the Indian Peninsula (the Deccan of European writers), and Tamil is merely another form of Dravida.

Accepting, with one small addition (Máhl, the mother-tongue of the Natives of Minicoy Island), the classification of Bishop Caldwell, Mr. H. A. Stuart, Census Commissioner, 1891, gives the following list of the Dravidian languages and their dialects, with the numbers of those who returned each :—

Language.	Dialect.	Total.
Tamil ..	{ Tamil ..	14,076,989
	{ Yerukala or	
	{ Korava ..	37,536
	{ Irula ..	1,614
	{ Kasuva ..	316
Telugu ..	.. ..	13,653,674
Malayálam ..	.. ..	2,688,332
Máhl ..	.. ..	3,167
Canarese ..	{ Canarese ..	1,445,650
	{ Badaga ..	30,656
	{ Kurumba ..	3,742
Tulu ..	{ Tulu ..	461,176
	{ Koraga ..	1,868
	{ Bellara ..	668
Khond ..	.. ..	190,893

Language.	Dialect.				Total.
Gond ..	{	Gond ..	..	..	6,694
		Gotte ..	..	..	353
		Kóya ..	..	..	36,503
Tóda	736
Kôta	1,201
Kodagu	247

According to Haeckel¹ three of the twelve species of Man—the Dravidas (Deccans; Sinhalese) Nubians, and Mediterranean (Caucasians, Basque, Semites, Indo-Germanic tribes)—“agree in several characteristics, which seem to establish a close relationship between them, and to distinguish them from the remaining species. The chief of these characteristics is the strong development of the beard, which, in all other species, is either entirely wanting, or but very scanty. The hair of their heads is in most cases more or less curly. Other characteristics also seem to favour our classing them in one main group of curly-haired men (*Euplocomi*). At present the primæval species, *Homo Dravida*, is only represented by the Deccan tribes in the southern part of Hindustan, and by the neighbouring inhabitants of the mountains on the north-east of Ceylon. But, in earlier times, this race seems to have occupied the whole of Hindustan, and to have spread even further. It shows, on the one hand, traits of relationship to the Australians and Malays; on the other to the Mongols and Mediterranean. Their skin is either of a light or dark brown colour; in some tribes of a yellowish brown, in others almost black brown. The hair of their heads is, as in Mediterranean, more or less curled; never quite smooth, like that of the *Euthycomi*, nor actually woolly, like that of the *Ulotrichi*. The strong development of the beard is also like that of the Mediterranean. The oval form of face seems partly to be akin to that of the Malays, partly to that of the Mediterranean. Their forehead is generally high, their nose prominent and narrow, their lips slightly protruding. Their language is now very much mixed with Indo-Germanic elements, but seems to have been originally derived from a very peculiar primæval language.”

In the chapter devoted to ‘Migration and Distribution of Organisms,’ Haeckel, in referring to the continual changing of the distribution of land and water on the surface of

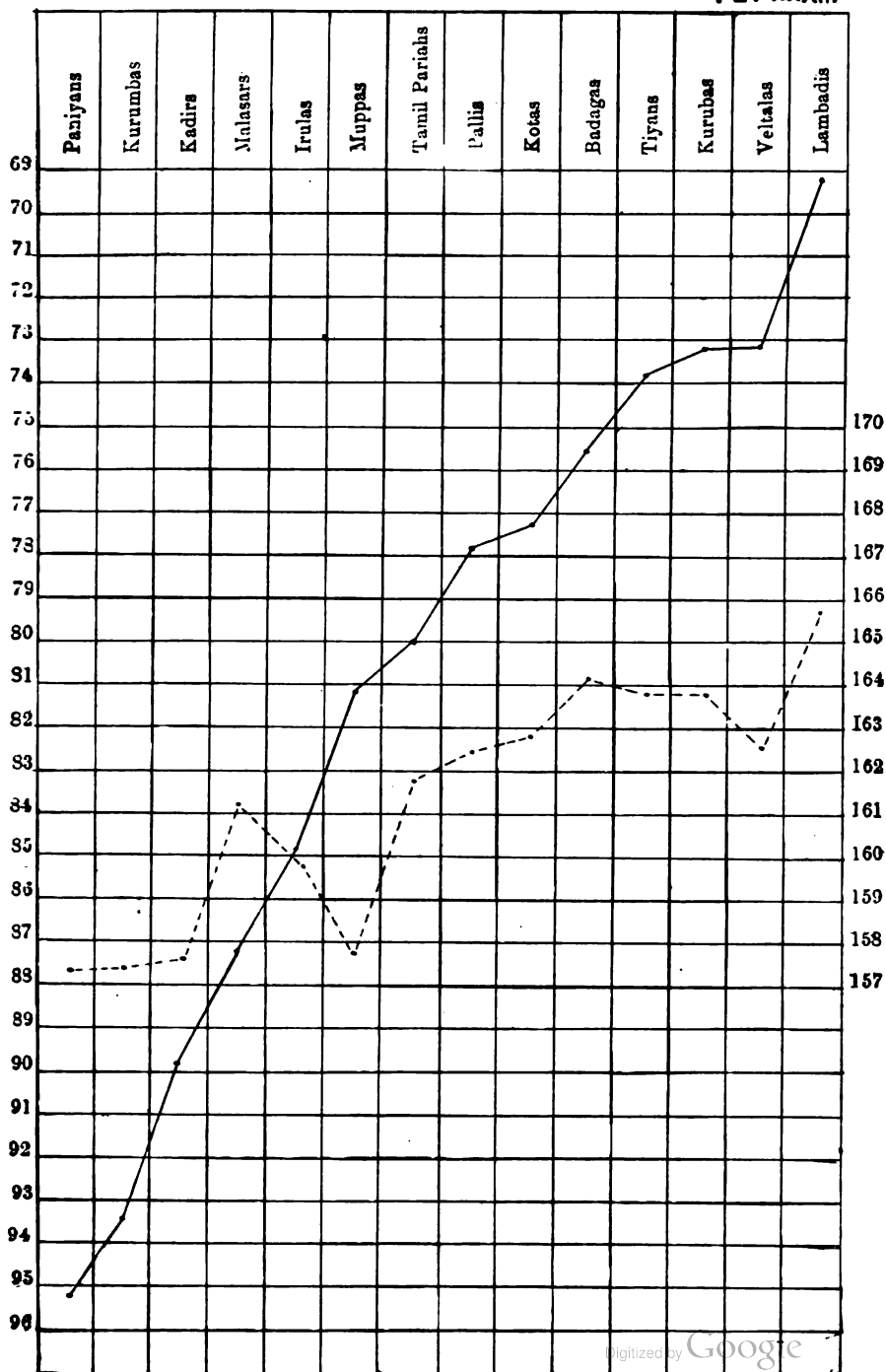
¹ ‘History of Creation.’

the earth, says: "The Indian Ocean formed a continent, which extended from the Sunda Islands along the southern coast of Asia to the east coast of Africa. This large continent of former times Solater has called Lemuria, from the monkey-like animals which inhabited it, and it is at the same time of great importance from being the probable cradle of the human race. The important proof, which Wallace has furnished by the help of chronological facts, that the present Malayan Archipelago consists in reality of two completely different divisions, is particularly interesting. The western division, the Indo-Malayan Archipelago, comprising the large islands of Borneo, Java, and Sumatra, was formerly connected by Malacca with the Asiatic continent, and probably also with the Lemurian continent just mentioned. The eastern division, on the other hand, the Austro-Malayan Archipelago, comprising Celebes, the Moluccas, New Guinea, Solomon's Islands, etc., was formerly directly connected with Australia."

On the evidence of the very close affinities between the plants and animals in Africa and India at a very remote period, Mr. R. D. Oldham concludes that there was once a continuous stretch of dry land connecting South Africa and India. "In some deposits," he says [Man. Geol. Ind.] "found resting upon the Karoo beds on the coast of Natal, 22 out of 35 species of Mollusca and Echinodermata collected and specifically identified, are identical with forms found in the cretaceous beds of Southern India, the majority being *Trichinopoli* species. From the cretaceous rocks of Madagascar six species of cretaceous fossils were examined by Mr. R. B. Newton in 1889, of which three are also found in the Ariyalur group [Southern India]. The South African beds are clearly coast or shallow water deposits, like those of India. The great similarity of forms certainly suggests continuity of coast line between the two regions, and thus supports the view that the land connection between South Africa and India, already shown to have existed in both the lower and upper Gondwana periods, was continued into cretaceous times."

It is worthy of note that Haeckel defines the nose of the Dravidian as a prominent and narrow organ. For Mr. Risley² lays down that, in the Dravidian type, the nose is thick and broad, and the formula expressing the proportionate dimension (nasal index) is higher than in any known

² 'Tribes and Castes of Bengal.'



race, except the Negro; and that the typical Dravidian, as represented by the Mále Pahária (nasal index 94·5), has a nose as broad in proportion to its length as the Negro, while this feature in the Aryan group can fairly bear comparison with the noses of sixty-eight Parisians, measured by Topinard, which gave an average of 69·4. In this connection a study of table XXXIII, based on the results of my measurements, is not without interest. In this table I have brought together, for the purpose of comparison, the nasal indices (lined) and stature (dotted) of jungle tribes, Dravidians of the plains, and the nomad Lambádís, who speak an Aryan language. The table demonstrates very clearly a progressive and unbroken series ranging from the typical jungle-man, whom I may term archi-Dravidian, dark-skinned, short of stature, and platyrhine, through various mixed Dravidian classes of the plains, to the comparatively fair-skinned, leptorhine Lambádi. The influence of crossing through many ages on the Dravidian type is referred to hereafter. But I may draw attention to the indisputable fact that it is to the lasting influence of a broad nosed ancestor, such as is represented at the present day by the jungle tribes, that the very high nasal index and short stature of many of the modern inhabitants of Southern India (Dravidian, Muhammadan, Eurasian, and 'Aryan') must be attributed. Viewed in the light of this remark, the connection between the following mixed collection of individuals, all of very dark colour, short of stature, and with nasal index exceeding 90, calls for no further explanation:—

	Stature.	Nasal
	CM.	Index.
Saiyad Muhammadan ..	.. 160	91·3
Vellala .. .. .	.. 154·8	91·6
Muppa .. .. .	.. 151·2	91·9
Malaisali .. .. .	.. 158·8	92·5
Konga .. .. .	.. 157	92·7
Kadir .. .. .	.. 156·5	92·7
Pattar Bráhmaṇ ..	.. 157·6	92·9
Kurumba .. .. .	.. 159·6	93·2
Malasar .. .. .	.. 149·2	95
Smárta Bráhmaṇ ..	.. 159	95·1
Palli .. .. .	.. 157·8	95·1
Irula .. .. .	.. 155·4	95·1
Paniyan .. .. .	.. 157·8	95·1
Irula .. .. .	.. 158·6	100
Tamil Pariah .. ..	.. 160	105
Paniyan .. .. .	.. 158·8	105·3
Kadir .. .. .	.. 148·6	110·5

By Huxley³ the races of mankind are divided into two primary divisions: the Ulotrichi with crisp or woolly hair (Negros; Negritos), and the Leiotrichi with smooth hair. And the Dravidians are included in the Australioid group of the Leiotrichi "with dark skin, hair, and eyes, wavy black hair, and eminently long, prognathous skulls, with well-developed brow ridges, who are found in Australia and in the Dekhan." There is, in the collection of the Royal College of Surgeons' Museum, an exceedingly interesting 'Hindu' skull from Southern India, conspicuously dolichocephalic, and with highly developed superciliary ridges. Some of the recorded measurements of this skull are as follows:—

Length	..	..	..	19.6	CM.
Breadth	..	..	..	13.2	"
Cephalic index	..	..	..	67.3	
Nasal height	..	..	..	4.8	CM.
„ breadth	..	..	..	2.5	"
„ index	..	..	..	52.1	

Another 'Hindu' skull, in the collection of the Madras Museum, with similar marked development of the superciliary ridges, has the following measurements:—

Cephalic length	..	..	..	18.4	CM.
„ breadth	..	..	..	13.8	"
„ index	..	..	..	75	
Nasal height	..	..	..	4.9	CM.
„ breadth	..	..	..	2.1	"
„ index	..	..	..	42.8	

I was quite recently much impressed by a Tamil Pariah, who by a happy chance came before me for examination, and of whom the following measurements were recorded:—

Height	..	..	..	161.8	CM.
Cephalic length	..	..	..	19.7	"
„ breadth	..	..	..	14.2	"
„ index	..	..	..	72.1	
Nasal height	..	..	..	4.4	CM.
„ breadth	..	..	..	4.2	"
„ index	..	..	..	95.5	"

With his prominent superciliary ridges and bushy eyebrows, hairy chest, abdomen, back, arms, and legs, and long, dolichocephalic head, this man might, save for his broad nose, have passed for a Toda of short stature, such as is frequently met with among the Toda community.

³ 'Anatomy of Vertebrated Animals.'

I am unable to subscribe to the general prognathism of the Dravidian tribes of Southern India, though there are some notable exceptions. Wavy and curly black hair are common types, but I have seen no head of hair to which the term woolly could be correctly applied.

By Flower and Lydekker ⁴ a white division of Man, called the Caucasian or Eurafican, is made to include Huxley's Xanthochroi (blonde type) and Melanochroi (black hair and eyes, and skin of almost all shades from white to black); and the Melanochroi are said to "comprise the greater majority of the inhabitants of Southern Europe, Northern Africa, and South West Asia, and consist mainly of the Aryan, Semitic, and Hamitic families. The Dravidians of India, the Veddahs of Ceylon, and probably the Ainos of Japan, and the Maoutze of China, also belong to this race, which may have contributed something to the mixed character of some tribes of Indo-China ⁵ and the Polynesian islands, and have given at least the characters of the hair to the otherwise Negroid inhabitants of Australia. In Southern India they are largely mixed with a Negrito element, and in Africa, where their habitat becomes coterminous with that of the Negroes, numerous cross-races have sprung up between them all along the frontier line. The ancient Egyptians were nearly pure Melanochroi."

In describing the 'Hindu type,' Topinard ⁶ divides the population of the Indian peninsula into three strata, viz., the Black, the Mongolian, and the Aryan. "The remnants of the first," he says, "are at the present time shut up in the mountains of Central India under the name of Bhils, Mahairs, Ghonds, and Khonds; and in the south under that of Yenâdis, Maravers, Kurumbas, Veddahs, etc. Its primitive characters, apart from its black colour and low stature, are difficult to discover, but it is to be noticed that travellers do not speak of woolly hair in India. The second has spread over the plateaux of Central India by two lines of way, one to the north-east, the other to the north-west. The remnants of the first invasion are seen in the Dravidian or Tamil tribes, and those of the second in the Jhats. The third more recent, and more important as to quality than as to

⁴ Mammals, living and extinct.

⁵ Vide Madras Museum Bull. No. 2, Vol. II, p. 119, sq.: also Tooth-chipping, K&ids, ante, p. 143.

⁶ 'Anthropology.' Translation.

number, was the Aryan." In speaking further of the Australian type, characterised by a combination of smooth hair with Negroid features, Topinard states that "it is clear that the Australians might very well be the result of the cross between one race with smooth hair from some other place, and a really Negro and autochthonous race. The opinions expressed by Huxley are in harmony with this hypothesis. He says the Australians are identical with the ancient inhabitants of the Deccan. The features of the present blacks in India, and the characters which the Dravidian and Australian languages have in common, tend to assimilate them. The existence of the boomerang⁷ in the two countries, and some remnants of caste in Australia, help to support the opinion. But the state of extreme misery of the inferior tribes may equally explain some of the physical differences which they present. Woolly hair appears now to be but seldom seen. A few examples have been noticed in the York peninsula and the north-west point, which might be accounted for by the immigration of Papuans from New Guinea, and in the south by the passage over to the other side of Behring's Straits of some Tasmanians to the continent. On the other hand, on studying the Australian skull, we notice tolerably-marked differences of type, and it is certain that the Polynesians landed at some period or other in the north-west, and the Malays in the north-east. Lastly, if the Australians are thorough Hindoos as regards their hair, they are Melanesians, or, if you will, new Hebrideans, new Caledonian Negroes, in every other respect. The question may, therefore, be left. We are still in ignorance as to whether the present Australian race took its origin on the spot, with the characters that we admit as belonging to it, or whether, on the contrary, it was altogether constituted in Asia, or whether it is a cross race, and, in that case, of what elements it is composed. Those which we might consider in India as of the same race are the Bhils, Ghonds, Khonds, Mahairs, Varalis, Mundas; Veddahs, Yanādis, and Maravers of the coast of Coromandel. Among the Todas of the Nilgherries, and, strangely enough, farther on towards the north,

⁷ *Vide* Oppert, Journal, Madras Literature Society, Vol. XXV. Boomerangs are used by the Tamil Maravars and Kallans when hunting deer. The Madras Museum collection contains three (two ivory, one wooden) from the Tanjore armoury. In the arsenal of the Pudukkōttai Rāja a stock of wooden boomerangs is always kept. Their name in Tamil is *valai tadi* (bent stick). When thrown, a whirling motion is imparted to the weapon, which causes it to return to the place from which it was thrown. The Natives are well acquainted with this peculiar fact.

among certain of the Ainus, two of the fundamental Australian traits are met with; namely, the very projecting superciliary arch, and the abundant hair over the whole body. In the same Nilgherry hills, in the desired conditions for concealing the remnants of ancient races, two tribes, the Irulas and Kurumbas, especially afford matter for reflection." And to these must be added the Paniyans, Kādīrs, Sholigas, and other jungle tribes, in the investigation of which I am at present interested. Finally, Topinard points out, as a somewhat important piece of evidence, that, in the west, about Madagascar, and the point of Aden in Africa, there are black tribes with smooth hair, or, at all events, large numbers of individuals who have it, mingled particularly among the Somālis and the Gallas, in the region where M. Broca has an idea that some dark and not Negro race, now extinct, once existed. He also refers, in a sketch of ethnic characters, to the institution of caste, which is regularly established in India, and found in Australia in a rudimentary state, as well as in some parts of the Malay Peninsula.

At the last meeting of the British Association, Mr. W. Crooke gave expression to the view that the Dravidians represent an emigration from the African continent, and discounted the theory that the Aryans drove the 'aboriginal' inhabitants into the jungles with the suggestion that the Aryan invasion was more social than racial, viz., that what India borrowed from the Aryans was manners and customs. According to this view it must have been reforming 'aborigines' who gained the ascendancy in India, rather than new comers; and those of the 'aborigines' who clung to their old ways got left behind in the struggle for existence.

In an article devoted to the Australians, Professor R. Semon writes as follows⁸: "We must, without hesitation, presume that the ancestors of the Australians stood, at the time of their immigration to the continent, on a lower rung of culture than their living representatives of to-day. They must have brought with them their only domestic animal, the Dingo dog, for they could not have found it in Australia, which contains marsupials, but no placental mammals. Whence, and in what manner the immigration took place, it is difficult to determine. In the neighbouring quarter of the globe there lives no race, which is closely related to the Australians. Their nearest neighbours, the Papuans of New

⁸ Die Natur. No. 20, 17 May, 1896.

Guinea, the Malays of the Sunda Islands, and the Maoris of New Zealand, stand in no close relationship to them. On the other hand, we find further away, among the Dravidian aborigines of India, types which remind us forcibly of the Australians in their anthropological characters. In drawing attention to the resemblance of the hill-tribes of the Deccan to the Australians, Huxley says: 'An ordinary cooly, such as one can see among the sailors of any newly-arrived East Indian vessel, would, if stripped, pass very well for an Australian, although the skull and lower jaw are generally less coarse.' Huxley here goes a little too far in his accentuation of the similarity of type. We are, however, undoubtedly confronted with a number of characters—skull formation, features, wavy curled hair—in common between the Australians and Dravidians, which gain in importance from the fact that, by the researches of Norris, Bleek, and Caldwell, a number of points of resemblance between the Australian and Dravidian languages have been discovered, and this despite the fact that the homes of the two races are so far apart, and that a number of races are wedged in between them, whose languages have no relationship whatever to either the Dravidian or Australian.

"There is much that speaks in favour of the view that the Australians and Dravidians sprang from a common main branch of the human race. According to the laborious researches of Paul and Fritz Sarasin, the Veddas of India and Ceylon, whom one might call pre-Dravidians, would represent an off-shoot from this main stem. When they branched off, they stood on a very low rung of development, and seem to have made hardly any progress worth mentioning. The remarkable ainus of Japan, and the 'Khmers' and Chams of Cambodia seem to be scattered off-shoots of the Dravidian-Australian main branch.

"The Caucasians have probably sprung from the Dravidians, and we, Europeans, should, therefore, have to look upon the low savages of Australia as relations, very distant it is true, but yet nearer related to us than Negroes, Malays, and Mongols. It has been pointed out by several observers that the features of the Australians, with all their ugliness and coarseness, frequently remind one of low types of the Caucasian features. To those who regard it as a degradation to the human race, when science draws the conclusion that man has sprung from the brute inhabitants of the earth, and stands in close relationship with the ape-family, the reflection will be also unpleasant that, among the human species, the

Caucasians, who, for several thousand years, have progressed so splendidly and so far, have as near relations the nomad savages of Australia, and the Veddahs who are designated monkeys in the Hindu legend. To science the only consideration is whether the conclusions are correct, not whether they are according to the personal taste of the few. It is difficult to understand how there can be anything degrading in belonging to a race, which, from crude beginnings, has worked itself up to the still rather modest level of modern Caucasian civilisation through stages, which are represented by the Veddahs, Australians, and Dravidians. On the other hand, there is something sublime in the conviction that the development of the human race, both bodily and intellectual, is as yet unfinished, and that our present state of civilisation, burthened with innumerable imperfections, will be regarded by our descendants in the far future as a long surpassed one, as derisively as we now look down on the state of civilisation and culture of the Australians and Veddahs."

In dealing with the Australian problem, Mr. A. H. Keane⁹ refers to the time when Australia formed almost continuous land with the African continent, and to its accessibility on the north and north-west to primitive migration both from India and Papuasias. "That such migrations," he says, "took place, scarcely admits of a doubt, and the Rev. John Mathew¹⁰ concludes that the continent was first occupied by a homogeneous branch of the Papuan race either from New Guinea or Malaysia, and that these first arrivals, to be regarded as true aborigines, passed into Tasmania, which at that time probably formed continuous land with Australia. Thus the now extinct Tasmanians would represent the primitive type, which, in Australia, became modified, but not effaced, by crossing with later immigrants, chiefly from India. These are identified, as they have been by other ethnologists, with the Dravidians, and the writer remarks that 'although the Australians are still in a state of savagery, and the Dravidians of India have been for many ages a people civilized in a great measure, and possessed of literature, the two peoples are affiliated by deeply-marked characteristics in their social system as shown by the boomerang, which unless locally evolved, must have been introduced from India. But the variations in the physical characters of the Natives appear to be too great to be accounted for by a single graft; hence

⁹ 'Ethnology,' 1896.

¹⁰ Proc. R. Soc. N. S. Wales, XXIII, part III.

Malays also are introduced from the Eastern Archipelago, which would explain both the straight hair in many districts, and a number of pure Malay words in several of the native languages." Dealing later with the ethnical relations of the Dravidas, Mr. Keane says that "although they preceded the Aryan-speaking Hindus, they are not the true aborigines of the Deccan, for they were themselves preceded by dark peoples, probably of aberrant Negrito type. They are usually regarded as a Mongoloid people, who entered India from the north-west, leaving on the route the Brahûis of Baluchistan, whose language shows some remote resemblance to Dravidian. But at present the type cannot be called Mongolio; it scarcely differs from the average Hindu, except in some districts, where it has been somewhat modified by contact with the Kolarians and dark aborigines It would seem that the position of the Indian Dravidas is somewhat analogous to the Caucasian type, and both have accepted Aryan culture, while preserving intact their non-Aryan speech."

Placing the Dravidians with the Negrito and Negrito-Papuan families of the Negrito section of the Indo-Melanesian branch of the Negro or Ethiopian trunk, de Quatrefages¹¹ lays special stress on the influence of crossing (*métissage*), while recognising that the Kurumbas, and other jungle tribes, have preserved their purity of blood and ethnological characters more or less completely. Which purity of blood and preservation of characters are unhappily commencing to degenerate as the result of the opening up of the jungles for tea and coffee estates, and the contact with more civilised tribes and races, black and white. "In the Gangetic peninsula," de Quatrefages says, "and the whole of India to the foot of the Himālayas, this crossing is carried out on an immense scale. All the so-called Dravidian population, and many others known by different names, indicate, by their physical characters, the presence of a black ethnological element. Documents of all sorts, photographs, skulls, etc., testify that this element is almost constantly Negrito. The rôle played in this admixture by the three fundamental types is very unequal, and varies according to the country which one examines. But, wherever Dravidians exist, the Blacks constitute the foundation of the half-breed race. Most frequently it is the yellow race, represented by the Thibetans, which has united with them. The white race only ranks in

¹¹ 'Histoire générale des Races Humaines.'

the third line. The legend of Ráma permits us to allow that the Aryans, on their arrival in Southern India, did not disdain to contract political alliances with these little black people.¹² In India most of the Dravidian tribes appear to owe their characters to an admixture of black and yellow. In the valleys of the Upper Bráhma-putra, and many other localities, the influence of Thibetan races is very marked. The general type has been altered by crossing with Bráhmanical Aryans, and other white races. It is this *ensemble* of half-caste races, all having Negrito blood in common, possibly also some traces of Australian blood, that I propose to designate by the name of Dravidians. In a region invaded a thousand times since the most remote times, many of the peoples cannot but have been profoundly modified from an ethnological point of view, though preserving their languages; while others forgot the language of their fathers, whose essential physical characters they, however, preserved."

Turning now to writers, who have spent a great part of their lives in the Madras Presidency. In the 'Manual of the Administration' of this Presidency, Dr. C. Maclean writes as follows: "The history proper of the south of India may be held to begin with the Hindu dynasties formed by a more or less intimate admixture of the Aryan and Dravidian systems of Government. But, prior to that, three stages of historical knowledge are recognizable; first, as to such aboriginal period as there may have been prior to the Dravidian; secondly, as to the period when the Aryans had begun to impose their religion and customs upon the Dravidians, but the time indicated by the early dynasties had not yet been reached. Geology and natural history alike make it certain that, at a time within the bounds of human knowledge, Southern India did not form part of Asia. A large southern continent, of which this country once formed part, has ever been assumed as necessary to account for the different circumstances. The Sanscrit Pooranic writers, the Ceylon Boodhists, and the local traditions of the West Coast, all indicate a great disturbance of the point of the Peninsula and Ceylon within

¹² How great must have been the influence of hybridisation on the population of Southern India, when carried on through ages, is accentuated by reference to the practical outcome of only a few centuries of contact between Europeans and Natives, which has resulted in the creation and establishment of a fertile half-breed race, numbering, according to the Madras Presidency Census return, 1891, 26,648—vide Madras Museum Bulletin, Vol. II, No. 2, 1898.

recent times.¹³ Investigations in relation to race show it to be by no means impossible that Southern India was once the passage-ground, by which the ancient progenitors of Northern and Mediterranean races proceeded to the parts of the globe which they now inhabit. In this part of the world, as in others, antiquarian remains show the existence of peoples, who used successively implements of unwrought stone, of wrought stone, and of metal fashioned in the most primitive manner.¹⁴ These tribes have also left cairns and stone circles indicating burial places. It has been usual to set these down as earlier than Dravidian. But the hill Coorumbur of the Pulmanair plateau, who are only a detached portion of the oldest known Tamulian population, erect dolmens to this day. The sepulchral urns of Tinnevely may be earlier than Dravidian, or they may be Dravidian. It has been stated that the wild tribes of Southern India are physiologically of an earlier type than the Dravidian tribes. This position has been found not to be proved, the conclusions being of a negative nature. The evidence of the grammatical structure of language is to be relied on as a clearly distinctive mark of a population, but, from this point of view, it appears that there are more signs of the great lapse of time than of previous populations. The grammar of the south of India is exclusively Dravidian, and bears no trace of ever having been anything else. The hill, forest, and Pariah tribes use the Dravidian forms of grammar and inflection The Dravidians, a very primeval race,¹⁵ take a by no means low place in the conjectural history of humanity. They have affinities with the Australian aborigines, which would probably connect their earliest origin with that people. But they have emerged

¹³ "It is evident that, during much of the tertiary period, Ceylon and South India were bounded on the north by a considerable extent of sea, and probably formed part of an extensive southern continent or great island. The very numerous and remarkable cases of affinity with Malaya require, however, some closer approximation to these islands, which probably occurred at a later period." Wallace, 'Geographical Distribution of Animals.'

¹⁴ Vide Brecks' 'Primitive Tribes and Monuments of the Nilgiris'; Phillips 'Tumuli of the Salem district'; Rea, 'Prehistoric Burial Places in Southern India'; and the Madras Museum collection. Mr. R. Bruce Foote has, I am happy to say, in hand the preparation of a catalogue raisonné of his magnificent collection of Indian 'Prehistoric Implements, &c.'

¹⁵ Sir John Evans, in his Presidential address at the meeting of the British Association, 1897, referred to the possibility of Southern India being 'the cradle of the human race.'

from the lower type, and acquired characteristics putting them at no great distance in the physiological scale from the later developed Semitic and Caucasian races. As now known, they are not straight-haired like the Malays and Mongolians, but more or less curly-haired, like both of the last named. The theory that they came to India from without, passing over the north-west boundary, and through Scinde, does not rest on sufficient evidence. If the Dravidians moved into India at all, it may be more reasonably conjectured that they came from the south or the east.

"About 2,000 or 3,000 years B.C., perhaps at the beginning of what has been styled the Kaliyog, or 3101 B.C., the Sanscrit-speaking Aryans came into India from their original home at the sources of the Oxus in the neighbourhood of Bokhara, where they had resided till the period when the Iranic branch of the tribe went to the south-east. The Indic branch of the Aryans advanced down the basins of the Indus and the Ganges to the estuary of both rivers; and then proceeded by different routes into the lower and middle range of the Himalaya, up the valley of Assam, down the Coast of the Bay of Bengal as far as Chicacole in the Ganjam district, across the rivers Nerbudda and Mahanuddy into Central India, and along the West Coast as far south as Goa. Another portion of the same branch went by sea to Ceylon, and laid the foundation of the Singhalese civilization."

Adopting a novel classification, Dr. Maclean, in assuming that there are no living representatives in Southern India of any race of a wholly pre-Dravidian character, sub-divides the Dravidians into pre-Tamulian and Tamulian, to designate two branches of the same family, one older or less civilised than the other.

Bishop Caldwell¹⁶, in summing up the question whether the forest tribes, the lower castes, and the so-called "outcasts" which speak the Dravidian languages, are of the same origin and of the same race as the Dravidians of the higher castes, expresses his opinion that the supposition that the lower castes in the Dravidian provinces belong to a different race from the higher, appears to him untenable. "It seems," he says, "safer to hold that all the indigenous tribes, who were found by the Aryans in Southern India, belonged substantially to one and the same race. It is probable enough that the Dravidians were broken up into tribes before the Aryan

¹⁶ 'Comparative Grammar of the Dravidian Languages.'

immigration, and that the distinctions, not only of richer and poorer, but also of master and slave, had already come into existence among them. Those distinctions may have formed the foundation of the caste system, which their Brahmanical civilisers built up, and which was moulded by degrees into an exact counterpart of the caste system of Northern India."

In his 'Original Inhabitants of Bharatavarsha or India,' Dr. G. Oppert contends that the names of many Dravidian tribes are derived from the Dravidian roots 'mal' and 'ku' both meaning a mountain. He thus traces an ultimate philological identity between the names of tribes and castes scattered throughout India, such as the Málas, Malayális, and Maravars; the Koís, Khonds, Gonds, Koravas, Kurumbas, Kodagus; and very many others. The relation of the existing hill and jungle tribes to the inhabitants of the plains is discussed in the 'Transactions of the Ethnological Society'¹⁷ by Mr. J. Crawford, who there challenges the theory which supposes the rude mountaineers to be the sole 'aborigines' of India, while it imagines the civilised inhabitants to be intrusive strangers, who, in a remote antiquity, invaded India, conquered it, and settled in it under the imposed names of Aryans for Northern and Turanian for Southern India. "To suppose," Mr. Crawford writes, "so great and fertile a region of the earth, and one consequently so favourable to the promotion of an early civilisation, to have been, within the historical period, destitute of any other original inhabitants than the few rude tribes now confined to its least favourable localities, until it came to be peopled by immigrant strangers from remote countries, is contrary to what is known to be the case, in all other portions of the globe. For my own part, I am satisfied that both the mountaineers and the inhabitants of the open plains and valleys are alike Natives of the soil and of the same race, allowance being made for such varieties of type as are found to exist in other large regions of the earth. . . . It is an opinion very generally entertained by Indian ethnologists that the races which they suppose to be the aborigines of India partake of a Negro character, in contradistinction to the civilised people of the low-lands; but this is a notion, for which I am satisfied there is no ground whatever. Throughout the continent of India no Negro or Negroid race has

¹⁷ Vol. VI, 1868—The supposed Aborigines of India as distinguished from its Civilised Inhabitants.

ever been found to exist. Wherever Negritos or Negroid races exist, their presence is unmistakably pronounced, as in the case of the Andaman Islands."

In an article entitled, "Caste and Colour" Mr. C. Johnston (*Calcutta Review*, 1895) divides the people of India on a simple colour basis into four or five principal types, with a series of intermediate types gradually melting into each other. These principal types are—

1. Fair, almost white. Brāhman.
2. Red. Rājput.
3. Yellow. Purest examples, the Kocch and Santāli in lower Bengal, and the Sāvāra in Madras.
4. Black, or nearly black. Dravidian.

"We must," Mr. Johnston says, "content ourselves for the present with saying that it seems fairly certain that there is a great ethnical family in Southern India, distinguished primarily by black or almost black skin; that this ethnical family cannot number less than a hundred million individuals; and that this great ethnical family is not related to any other ethnical family in Asia, but is isolated and distinct; so that we must seek for the ethnical kindred of the black Dravidian, if such kindred exist, outside Asia altogether, in some direction at present undermined. . . . It has for a long time been conceded that the fourth caste of the Brāhmanical polity was drawn from this black race."

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NOTES ON SOME OF THE PEOPLE OF MALABAR.

PREFATORY NOTE.

CLASSIFICATION of the peoples or races of this land can be attempted only when we are in possession of accurate knowledge concerning them, but not before. The kind of knowledge which is required may be grouped under anthropology and folklore—heads which include much of archæology. The last should by no means suffer from neglect, but, in the strict sense of its meaning, it is more confined to the relatively modern remains of man's handiwork, while the reach of the other two into the past is, one may say, boundless. In these, therefore, we must seek in order to find what we would know of the races of the human family, of the growth of human thought, of the trace of human religions, the course of civilization. The term folklore embraces not merely folk-tales, their variants and their migrations, which alone would perhaps never lead up to origins, but is comprehensive of all that pertains to human thought and feeling in the past as expressed in existing customs, ceremonial usages, beliefs, not omitting evidences of these in the tangible remains of the past, for example, the old stone circles. In England, observed facts have given us the wonderful truth that man lived there, and made and used rude flint tools anterior to the last glacial period, when the face of the land was as it is not now. The stream of facts has told us much of mankind all over the world, (what man has been), and it has therefore helped us much to know what he really is: much, relatively, but yet how little! Here in India, where facts are to be reaped and not merely gleaned, the country which is unique in the fulness of materials in which the anthropologist and the folklorist love to work—the only materials on which knowledge of the past can be based—the outturn is very limited indeed. The burden of work on the European in India is certainly heavy, and the bearers of it do not, as it were, seem to cry

out that it is not enough, and wish it to be enhanced by ethnological studies. We know how that interesting scenes in our neighbourhood, which may be seen at any time, are too often for that very reason never visited, but we know also that there is always time to do that which we like best. Whatever the reason may be, such facts as are of use to build up the structure of an ethnological survey of India—let us confine ourselves to our own Madras Presidency and say Southern India—are at the present moment very, very few. It is therefore without apology or superfluous pretext that, through the courtesy of Mr. Thurston, Superintendent of the Government Museum, Madras, who has already given the world the benefit of so much of his own valuable studies of races of Southern India, there are put forth in these pages a few facts respecting some of the peoples of Malabar, recorded by me during three and-a-half years spent in that district. Such facts are useless (except to the individual) unless recorded and put into shape for use and comparison. That they are incomplete is no reason for keeping them locked in silence.

Malabar is peculiarly interesting in the diversity of its peoples, for there are to be found Vedic Brahmins of the purest Aryan type in the south—the Nambútiris—and people of every grade down to the wildest denizens of the jungles to be found in Southern India—the Ernâdens. Study of its forest peoples alone might well occupy more than the lifetime of one investigator. In it is the Jew—for we may include the Jew as an inhabitant, since he has perhaps lived in it as long as the Anglo-Saxon has in England, and adopted the vernacular—with a nasal index of 61·5, and the Têṇ Kurumbars of the Wynâd forests, whose nasal index in the case of the men is 96·8, and in the case of the women 100·7. And there are peoples whose index forms a graduated scale between these points of minimum and maximum. The table which follows will give a fair idea of the inhabitants of Malabar. Among them are the most dolicho-cephalic people on record, the Mullu Kurumbars with narrow hands and feet as well as heads, and the Polayans, black in colour, and shortest of all the races of the world as given in Professor Topinard's 'List of Statures,'* measuring but 150·6 cm. or a little over 4 feet 11½ inches. There, too,

* Topinard's list does not include the small peoples of Central Africa or the hills beyond Morocco.

we meet with wide diversity in custom ; polyandry, polygamy and monogamy ; the system of inheritance through women, which perhaps indirectly helps towards blending of races more or less equal but not of the higher with the lower, side by side with the more usual system of inheritance through men. Polyandry, which obtains amongst the Todas living not far away, is still a feature of the marital arrangements of some of the Malabar peoples, in spite of the assertions of some that it has disappeared as it has from England, where, as Julius Cæsar is accurate enough to tell us, it was once customary.

TABLE I.

MALES. Caste or Race.	Height.	Span.	Chest.	Mid. finger to patella.	Shoulders.	Hips.	Left foot, length.	Cephalic length.	Cephalic width.	Cephalic index.	Bigoniac.	Bizygomatic.	Maxillo- zygomatic index.	Nasal height.	Nasal width.	Nasal index.
3 Jews of Cochin	169.6	174.0	88	14.2	41.0	28.1	25.2	19.3	15.2	77.9	10.9	13.8	78.7	5.4	3.3	61.5
25 Nambūtiri Brāhmins	162.3	170.0	83.7	10.5	40.7	26.2	24.5	19.2	14.6	76.3	10.6	13.2	80.4	4.9	3.7	75.5
25 Nayars, Kiriathiol	165.3	174.3	78.2	9.7	39.4	26.0	25.3	19.0	13.9	73.1	10.4	13.0	80.1	4.7	3.7	78.8
8 Nayars, Kurup	167.1	178.6	82.4	9.2	40.4	26.4	26.4	19.5	14.0	72.0	10.3	13.1	79.6	4.8	3.7	76.2
25 Nayars, Parattu Chārma.	166.1	174.0	79.6	10.7	39.6	25.7	25.3	19.5	14.5	72.2	10.3	13.0	79.5	4.8	3.6	76.8
25 Nayars, Sudra	165.9	174.3	81.1	9.9	40.2	26.0	25.3	19.2	14.1	73.8	10.5	13.1	80.3	4.7	3.7	79.4
25 Nayars, Nambiyar	165.1	175.3	80.3	10.4	40.0	25.4	25.2	19.2	14.1	73.7	10.3	13.0	79.2	4.8	3.7	77.3
12 Nayars, Group A	164.0	173.7	81.5	8.7	40.1	25.6	25.4	19.0	14.1	74.3	10.2	12.8	79.1	4.8	3.7	76.8
25 Nayars, Ūrālī	163.1	171.3	81.2	11.5	39.7	26.0	24.7	19.2	14.0	72.9	10.5	13.2	80.6	4.8	3.6	75.5
25 Nayars, Akattu Chārma.	163.1	175.2	81.0	9.9	40.1	25.9	25.1	19.1	13.9	72.8	10.5	13.0	81.2	4.7	3.6	77
25 Nayars, Vattakkād	167.0	177.8	81.3	9.4	40.3	26.3	25.7	19.2	14.2	74.1	10.5	13.1	80.1	4.9	3.5	71.8
50 North Malabar Tiyan	165.0	176.7	80.3	9.2	39.7	25.7	25.4	19.0	14.0	73.8	10.3	13.1	78.3	4.7	3.7	77.7
25 South Malabar Tiyan	162.5	173.3	80.8	8.5	39.3	25.4	25.2	19.3	14.1	72.4	10.2	13.0	78.5	4.7	3.7	78.9
7 Malayans, Paddi	164.0	176.3	79.2	9.9	38.6	24.7	25.6	18.8	14.0	73.9	10.4	13.1	79.0	4.2	3.8	92.4
25 Mukkuvans	163.3	175.2	83.7	...	39.3	25.6	25.6	18.9	14.2	75.4	10.5	13.1	79.4	4.2	3.7	87.1

TABLE I—cont.

MALES.		Height.	Span.	Chest.	Mid : finger to patella.	Shoulders.	Hips.	Left foot.	Cephalic length.	Cephalic width.	Cephalic index.	Bigoniac.	Bizygomatic.	Maxillo- sygomatic index.	Nasal height.	Nasal width.	Nasal index.
3	Palluvan	...	165.9	74.0	11.0	36.7	24.8	24.2	19.1	14.1	74.5	10.5	12.9	81.3	4.5	3.7	82.1
5	Malai (Hill) Nayars	...	161.6	82.8	7.0	38.5	25.5	25.4	18.8	14.0	74.3	10.4	12.9	80.7	4.4	3.8	85.7
25	Kurumbars, Mullu	...	161.1	80.2	...	38.3	24.8	24.4	19.3	13.6	70.3	10.3	12.8	80.4	4.2	3.6	86.9
25	Izhuvans	...	159.6	80.1	8.0	39.1	24.7	24.6	19.1	13.9	72.7	10.3	12.9	79.7	4.4	3.7	82.5
4	Malayans, Pattai	...	159.3	78.3	8.4	37.4	25.7	25.2	17.9	13.8	78.7	10.3	13.5	76.4	4.3	3.8	86.8
25	Kurichchiyans	...	159.2	78.7	...	37.3	24.8	24.9	18.3	14.1	76.7	10.3	13.1	78.0	4.3	3.7	87.4
5	Hill Polayans	...	159.2	78.6	8.1	37.3	24.6	23.8	19.2	13.9	72.4	10.5	13.2	79.2	4.3	3.6	84.0
25	Irulans	...	158.3	75.9	8.8	37	24.8	24.5	18.2	13.7	75.0	10.4	13.0	79.2	4.3	3.7	87.6
17	Kanakkans, Pattai	...	156.9	76.9	9.6	37.1	24.5	23.8	18.6	13.8	74.4	10.3	12.8	79.9	4.2	3.5	83.7
17	Kanakkans, Pála	...	155.5	76.9	8.3	37.8	24.3	23.8	18.5	13.7	74.5	10.0	12.7	78.7	4.3	3.7	87.7
25	Kurumbars, Bét	...	153.1	76.2	...	36.1	23.4	23.7	17.9	13.7	76.6	10.4	12.7	80.8	4.0	3.8	95.3
4	Erniádens	...	154.5	76.9	...	36.3	25.0	23.2	17.7	14.3	80.9	10.1	12.2	77.0	4.0	3.5	88.4
2	Kátar	...	154.3	78.6	12.0	38.1	25.1	24.1	18.8	13.7	72.9	10.4	12.8	81.0	4.4	3.9	87.5
18	Kurumbars Tén	...	153.4	76.6	7.6	35.6	23.8	23.6	18.2	14.0	77.0	9.8	13.1	75.4	3.9	3.8	96.8
25	Polayans	...	150.6	76.4	6.0	36.6	24.6	23.9	18.8	13.7	73.4	10.3	13.0	79.5	4.0	3.8	94.1

Note.—The measurements are recorded by centimetres.

In these pages there are given the more useful of the physical measures of all those who came under my measuring tools. A few, who were not suitable for classification, are omitted. And there follows some account of the Nambûtiri Brâhmans, described by Sir W. W. Hunter's facile pen as a "despised class," but who are surely the very reverse of despised. For this account I admit with pleasure my obligation to Mr. G. Venkatrao, who, in answering my questions on the various heads given on page 32 in the most pains-taking manner, has given me information impossible for any European to collect at first hand from this very exclusive people. Circumstances have, however, most fortunately put it in my power to test the communicated facts in the best way, so that what is set down may be taken as accurate. Criticism which will point out and correct errors will be valuable indeed. The notes attempt to describe the people as they actually are, and not as they are supposed to be in the books on Hinduism, which, for the most part, tell us of *Hinduism as it is not* in Southern India. Books have not been consulted or used anywhere except where the fact has been notified. Description of the other castes or peoples will be given hereafter.

It must be described how the measurements were taken. Subjects were taken haphazard, excepting that, in rare instances, one here and there was rejected as abnormally tall or abnormally short, and the greatest care was taken to differentiate, and thus avoid mixing together those who should be separated.

Stature.—The subject standing on the instrument box, back to the measuring rod which is kept perpendicular, using a plumb line.

Height sitting.—The subject sitting on the instrument box, back to the measuring rod, placed on a box so that the thighs of the subject are horizontal.

Height kneeling.—The subject kneeling on the instrument box, right or left side towards the measuring rod, as erect as possible.

Span.—The measuring rod held horizontally in front. An assistant placed the right hand of the subject against the rod, tip of the mid finger at the o; the stretch was made to the left as far as possible.

Chest.—Arms were raised above the head, elbows fairly in line with the shoulders, hands (fingers outstretched)

resting on the head. The measure was taken horizontally, lower edge of the tape touching the nipples, thus taking in the lower angle of the scapula, and read off at the back.

Shoulders.—Subject standing in the ordinary way, arms dangling; measure taken in front.

Hips.—Taken in front. The widest measure between the crests of the ilia (outer edge).

Left foot length.—The subject standing with the left foot on the instrument box placed a couple of feet from the wall; hands resting against the wall, right foot raised, leg bent at the knee. Instrument placed along the foot and touching it. Measure read off from the front.

Cephalic length and width.—Taken with the same instrument, using the curved ends of it.

Vertex to tragus and vertex to chin.—The subject erect, back against a wall. Chin not allowed to droop, but raised slightly. The first measure taken at the left side with the sliding callipers, upper rod long, the lower shorter, held perpendicular, using the plumb line. For the other, the instrument is held directly in front, and as before held perpendicular, using the plumb line.

Middle finger to patella.—Always difficult. Some of the victims were frightened and stiffened the knee, thus raising the patella about $1\frac{1}{2}$ cms. They stood on the box, hands straight down the sides as in the position "attention," left side to the measuring rod held perpendicular by an assistant (using the plumb line), while the heights of the top of the patella and of the tip of the left middle finger from the ground were taken. The difference is the measure recorded.

All the averages were reduced to stature = 100, but all these relative averages are not included here, so that the tables may be as simple as possible. Nor are there included the averages of the length of the femur and the same reduced to stature = 100: difference between height kneeling and height sitting being taken as the length of the femur. An inaccurate kind of measure on the living subject, but nevertheless instructive. The Patti Malayan have the longest femur, relatively, *i.e.*, to stature = 100, or 24.0, and at the other end of the scale are the Nambûtiri 22.2, and the Jew 21.5. It may be noted here that, though the Patti Malayan is 4.7 cm. shorter than the Paddi Malayan, his femur is .6 cm. longer.

The instruments used were a set of those made by Messrs. Aston & Manders for the use of travellers after the design of Dr. Garson, who was kind enough to recommend them to me, with the addition of a small sliding callipers for taking measures of the nose, and a plumb line.

Something must be said of the numbers measured. Those marked with an asterisk on pages 9 and 10 may be taken as complete. There is just a little hesitation in respect of the Kiriyaṭṭil Nayars, in spite of the differences between the average of 10 and 25 being small, for the Kiriyaṭṭil, the name of a clan (the description will suffice for the present) of South Malabar, is a fairly numerous body corresponding more or less to an agglomeration of ten clans, among them the Nambiyar of North Malabar; and his stature and his nasal index, to go no further, are not quite what we would expect them to be. As it was found to be the case in Bengal, so in Malabar, castes are as a rule high (though there are exceptions) in the social scale according as their nasal index is low and, conversely low when their nasal index is high.

In the case of those so marked (with an asterisk), whose numbers are less than 25, the differences between the averages of 10 and the total number are so trifling as to be immaterial. But it may be asked why include averages of the measures of 2, 3, or 4 individuals when conclusions cannot be based on them? Such averages cannot be accepted as those of the caste or race. Even though inconclusive, they are nevertheless interesting. They help to *place* the caste. The Kátars were taken about 50 miles away in the Cochin forests, where it is extremely unhealthy for a great part of the year, and healthy for not much longer than it is wet. When will the next anthropologist be there?

To stow away measures of jungle-folk merely because they are not complete would be profligate selfishness, for of all people the wild inhabitants of the forest are the most interesting to the anthropologist. As regards some of these, for instance, the Ernádens, with their strangely broad heads, inhabiting a tract not 20 miles from the narrow-headed Mullu Kurumbars (Vêdas), it may be said it is very doubtful indeed whether they will ever again be brought under the measuring tools. The reason why will be apparent when we come to describe them. The Mullu Kurumbars, who call themselves Vêdas, are probably allied to the dolicho-cephalic Vêdas (or Vêddalis) of Ceylon. Luckily, I was able to photograph the Ernáden men and women who were

measured; not satisfactorily, however. Lucky, too, to have got hold of the wild Tén Kurumbar. These people call themselves Jain (Jên) Kurumbars. Jên has nothing to do with the religion of that designation, but is the word tén (honey) as pronounced by these Kurumbars. Like many castes or peoples of the lower races, there are certain consonants of the vernacular which they cannot pronounce; and so they pronounce Tén, Jên. They are very clever at gathering honey from the high trees and impossible rocks, and eat it greedily. Is it their totem? I wish I could say! Totems are, we know, often eaten; and there are people in other parts of the Presidency calling themselves Kurumbars, who are totemistic.

Perhaps these notes will help in determining the vexed question of identity of race between some of the Australians and the earlier races of Southern India.

Specimens of hair were taken in order to determine the conformation—a purpose which it has not yet been possible to fulfil.

The finger-prints of all who were measured were taken and classified according to Mr. Galton's method, but they are not referred to in the notes, as it has not yet been discovered that finger-prints are a racial characteristic.

Something of the architecture of Malabar will be seen in the illustrations: alone a subject of great interest, as (so Ferguson says) it is Nepaulese in style, though there is nothing resembling it between Nepaul and Malabar.* This style of architecture is fast disappearing, unfortunately, under the influences of economy and utility, qualities possessed by the mission-made roofing tiles, which suit admirably the purpose for which they are intended. These tiles are clapped on every new roof, on every old roof re-roofed; so that we shall soon be able to say of the Malabar temples "Their old beauty is no longer beautiful."

	Males.				Statures.
Jew of Cochin	169.6
Náyar—Kurup	167.1

* NOTE.—It may be Chinese in origin. There are several points of outward resemblance between Chinese architecture and that of the Malabar temples.

Males.	Statures.
Nayar—Vattakkád	167·0 *
Do. Purattu Chârna	166·1 *
Do. Sûdra	165·9 *
Do. Kiriyañtil	165·3 *
Do. Nambiyar	165·1 *
Do. Akattu Chârna	165·0 *
North Malabar, Týan	165·0 *
Náyar—various ; Group A	164·0
Malayan—Paddi, Nelliyañpati Hills ..	164·0
Mukkuvan, fishermen	163·3 *
Náyar—Uráli	163·1 *
Pulluvar	163·1
South Malabar Týan	152·5 *
Nambûñtiri, Bráñhmañ	162·3 *
Mala, or Hill Náyar	161·6
Kurumbar—Muññu ; also called Védañ ..	161·1 *
Izhuvan, of Palghat	159·6 *
Malayan—Patti, Nelliyañpati Hills ..	159·3
Kurichchiyañ of Wynaad Hills	159·2 *
Hill Polayañ, of Wynaad Hills	159·2
Irulan of Waliyañ forests—in the plains	158·3 *
Kanakkañ—Patta	156·9 *
Do. Pála	155·5 *
Kurumbar—Bét or Uráli	155·1 *
Erñáden, of Nilambur valley forests— plains	154·5
Káñtar, Nelliyañpati Hills	154·3
Kurumbar—Tén, Wynaad Hills	153·4 *
Polayañ, North Malabar	150·6 *

NOTE.—(1) Group A consists of Nayañs of the following classes : 2 Nelliðanañ, 1 Viyyár, 1 Vangilóññ, 1 Kitávu, 3 Pullichchanañ, 1 Muppati-náñyirañ, 2 Vyápañri, 1 Attikkurissi.

(2) In the column of statures, those marked with an asterisk have been measured practically completely. The number of individuals actually measured and from which the averages, etc., are drawn, have been shown on page 4. Those not marked with the asterisk are, however, included, although the results respecting them are not by any means complete.

Females.	Statures.
Kurumbar—Muññu	149·1
Iluvañ or Izhuvañ of Palghat	146·5
Erñáden	146·05
Kanakkañ—Pála	144·3
Do. Patta	143·5
Kurumbar—Tén	142·15
Polayañ	135·4

Males.					Height, sitting.
Jew	..	..	..	..	90·6
Nāyar—Sūdra	..	..	..	..	85·8
Do. Kurup	..	..	..	..	85·7
Do. Akattu Chárna	..	..	..	..	85·5
Do. Purattu Chárna	..	..	..	..	85·3
Nambûtiri	..	..	..	..	84·7
Nāyar—Vattakkád	..	..	..	..	84·6
Do. Kiriyaṭṭil	..	..	..	..	84·3
Do. Úráli	..	..	..	..	84·2
Do. Group A	..	..	..	..	84·2
Do. Nambiyar	..	..	..	..	84·2
North Malabar Týan	..	..	..	..	84·1
Mukkuvan	..	..	..	..	83·9
Malayan—Paddi	..	..	..	..	83·4
South Malabar Týan	..	..	..	..	82·6
Kurumbar—Mullu	..	..	..	..	82·3
Izhuvaṇ	..	..	..	..	82·1
Kurichchiyaṇ	..	..	..	..	81·5
Hill Polayan	..	..	..	..	80·4
Mala Nāyar	..	..	..	..	80·3
Pulluvar	..	..	..	..	80·2
Bēt Kurumbar	..	..	..	..	79·5
Kanakkan—Patta	..	..	..	..	79·5
Do. Pála	..	..	..	..	79·4
Irulaṇ	..	..	..	..	79·1
Malayan—Patti	..	..	..	..	78·4
Ernáden	..	..	..	..	78·1
Kurumbar—Tén	..	..	..	..	77·9
Polayan	..	..	..	..	77·1
Kátar	..	..	..	..	74·6

Females.					Height, sitting.
Izhuvaṇ	..	..	..	..	77·1
Kurumbar—Mullu	..	..	..	..	77·1
Kanakkan—Patta	..	..	..	..	74·0
Do. Pála	..	..	..	..	73·8
Ernáden	..	..	..	..	72·8
Kurumbar—Tén	..	..	..	..	70·2
Polayan	..	..	..	..	68·8

Males.					Height, kneeling.
Jew	..	..	..	..	127·0
Nāyar—Kurup	..	..	..	..	124·1
Do. Vattakkád	..	..	..	..	122·9
Do. Sūdra	..	..	..	..	122·9
Do. Purattu Chárna	..	..	..	..	122·7

Males— <i>cont.</i>				Height, kneeling.
Náyar—Akattu Chârna	..	..	..	122·3
Do. Nambiyar	..	..	..	122·0
Do. Group A	..	..	..	121·7
North Malabar Tiyan	..	..	..	121·2
Náyar—Kiriyañtil	..	..	..	121·2
Malayan—Paddi	..	..	..	121·0
Mukkuvan	..	..	..	120·9
Nambúñtiri	..	..	..	120·8
Náyar—Uráli	..	..	..	120·7
South Malabar Tiyan	..	..	..	120·2
Kurumbar—Muññu	..	..	..	119·9
Kuriñchayan	..	..	..	119·2
Mañá Náyar	..	..	..	118·9
Izhuvan	..	..	..	118·0
Pulluvar	..	..	..	117·5
Hill Polayan	..	..	..	117·2
Malayan—Patti	..	..	..	116·6
Kanakkan—Patta	..	..	..	116·1
Irulan	..	..	..	115·9
Kanakkan—Pála	..	..	..	115·2
Kurumbar—Bét	..	..	..	114·7
Ernáññen	..	..	..	114·5
Kurumbar—Tén	..	..	..	113·5
Polayan	..	..	..	111·7
Káñtar *	..	..	..	111·2

Females.				Height, kneeling.
Kurumbar—Muññu	..	..	..	111·4
Izhuvan	..	..	..	108·3
Kanakkan—Pála	..	..	..	107·7
Ernáññen	..	..	..	107·7
Kanakkan—Patta	..	..	..	107·2
Kurumbar—Tén	..	..	..	105·4
Polayan	..	..	..	101·1

Males.				Span.
Náyar—Kurup	..	..	..	178·6
Do. Vattakkád	..	..	..	177·8
North Malabar Tiyan	..	..	..	176·7
Malayan—Paddi	..	..	..	176·25
Náyar—Nambiyar	..	..	..	175·3
Do. Akattu Chârna	..	..	..	175·2
Mukkuvan	..	..	..	175·2

* One individual only.

Males—cont.					Span.
Nāyar Kiriyaṭṭil	..	..	..	..	174·3
Mala Nāyar	..	..	..	..	174·3
Nāyar—Sūdra	..	..	..	..	174·3
Do. Purattu Chārna	..	..	..	..	174·0
Jew	..	..	..	..	174·0
South Malabar Tīyan	..	..	..	..	173·9
Malayan—Patti	..	..	..	..	173·85
Nāyars—Group A	..	..	..	..	173·7
Kurumbar—Muḷḷu	..	..	..	..	171·9
Nāyar—Ūrāli	..	..	..	..	171·3
Kurichchiyan	..	..	..	..	170·4
Izhuvan	..	..	..	..	170·2
Nambūtīri	..	..	..	..	170·0
Hill Polayan	..	..	..	..	169·8
Irulan	..	..	..	..	169·3
Pulluvar	..	..	..	..	165·9
Kanakkan—Pāla	..	..	..	..	165·5
Do. Patta	..	..	..	..	165·2
Kurumbar—Tēn	..	..	..	..	164·7
Kātar	..	..	..	..	164·2
Kurumbar—Bēt	..	..	..	..	163·7
Polayan	..	..	..	..	162·1
Ernáden	..	..	..	..	161·9

Females.					Span.
Kurumbar—Muḷḷu	..	..	..	..	155·2
Izhuvan	..	..	..	..	153·8
Ernáden	..	..	..	..	152·3
Kanakkan—Pāla	..	..	..	..	150·8
Kurumbar—Tēn	..	..	..	..	150·1
Kanakkan—Patta	..	..	..	..	149·3
Polayan	..	..	..	..	143·8

Males.					Chest.
Jew	..	..	..	..	88·0
Nambūtīri	..	..	..	..	83·7
Mukkuvan	..	..	..	..	83·7
Mala Nāyar	..	..	..	..	82·8
Nāyar—Kurup	..	..	..	..	82·4
Do. Group A	..	..	..	..	81·5
Do. Vattakkád	..	..	..	..	81·3
Do. Ūrāli	..	..	..	..	81·2
Do. Sūdra	..	..	..	..	81·1
Do. Akattu Chārna	..	..	..	..	81·0
South Malabar Tīyan	..	..	..	..	80·8
North Malabar Tīyan	..	..	..	..	80·3

Males—cont.				Chest.
Nayar—Nambiyar	..	..	..	80.3
Kurumbar—Mullu	..	..	..	80.2
Izhuvar	..	..	..	80.1
Nayar—Purattu Chârna	..	..	..	79.6
Malayan—Paddi	..	..	..	79.2
Kurichchiyan	..	..	..	78.7
Hill Polayan	..	..	..	78.6
Kâtar	..	..	..	78.6
Malayan—Patti	..	..	..	78.3
Nayar—Kiriyaatil	..	..	..	78.2
Kanakkan—Patta	..	..	..	76.9
Do. Pâla	..	..	..	76.9
Ernâden	..	..	..	76.9
Kurumbar—Tên	..	..	..	76.6
Polayan	..	..	..	76.4
Kurumbar—Bêt	..	..	..	76.2
Irular	..	..	..	75.9
Pulluvar	..	..	..	74.0

Males.				Shoulders.
Jew	..	..	..	41.0
Nambûtiri	..	..	..	40.7
Nayar—Kurup	..	..	..	40.4
Do. Vattakkéd	..	..	..	40.3
Do. Sûdra	..	..	..	40.2
Do. Akattu Chârna	..	..	..	40.1
Do. Group A	..	..	..	40.1
Do. Nambiyar	..	..	..	40.0
Do. Urâli	..	..	..	39.7
North Malabar Tiyan	..	..	..	39.7
Nayar—Purattu Chârna	..	..	..	39.6
Do. Kiriyaatil	..	..	..	39.4
Mukkuvar	..	..	..	39.3
South Malabar Tiyan	..	..	..	39.3
Izhuvar	..	..	..	39.1
Malayan—Paddi	..	..	..	38.6
Mala Nayar	..	..	..	38.5
Kurumbar—Mullu	..	..	..	38.3
Kâtar	..	..	..	38.1
Kanakkan—Pâla	..	..	..	37.8
Malayan—Patti	..	..	..	37.35
Kurichchiyan	..	..	..	37.3
Hill Polayan	..	..	..	37.3
Kanakkan—Patta	..	..	..	37.1
Irulan	..	..	..	37.0
Pulluvar	..	..	..	36.7
Polayan	..	..	..	36.6

Males—cont.					Shoulders.
Ernáden	..	..	..	..	36·3
Kurumbar—Bét	..	..	..	..	36·1
Do. Tén	..	..	..	..	35·6

Females.					Shoulders.
Kurumbar—Mullu	..	..	..	..	35·0
Izhuvan	..	..	..	..	34·5
Kanakkan—Pála	..	..	..	..	32·8
Do. Patta	..	..	..	..	32·4
Ernáden	..	..	..	..	31·8
Kurumbar—Tén	..	..	..	..	31·7
Polayan	..	..	..	..	31·5

Males.					Left cubit.
Náyar—Kurup	..	..	..	..	47·5
Malayan—Paddi	..	..	..	..	46·95
Náyar—Vattakkád	..	..	..	..	46·9
Malayan—Patti	..	..	..	..	46·85
Mukkuvan	..	..	..	..	46·7
Mala Náyar	..	..	..	..	46·5
North Malabar Týan	..	..	..	..	46·4
South Malabar Týan	..	..	..	..	46·2
Náyar—Súdra	..	..	..	..	46·1
Do. Nambiyar	..	..	..	..	46·0
Do. Kiriyaatil	..	..	..	..	45·9
Do. Group A	..	..	..	..	45·9
Do. Akattu Chârna	..	..	..	..	45·9
Do. Purattu Chârna	..	..	..	..	45·8
Jew	..	..	..	..	45·8
Irulan	..	..	..	..	45·4
Kurichchian	..	..	..	..	45·3
Kurumbar—Mullu	..	..	..	..	45·2
Izhuvan	..	..	..	..	45·2
Náyar—Úráli	..	..	..	..	45·2
Kurumbar—Bét	..	..	..	..	44·8
Kanakkan—Patta	..	..	..	..	44·3
Ernáden	..	..	..	..	44·3
Nambútiri	..	..	..	..	44·2
Polayan	..	..	..	..	44·2
Kurumbar—Tén	..	..	..	..	44·2
Hill Polayan	..	..	..	..	44·1
Kanakkan—Pála	..	..	..	..	44·0
Kâtar	..	..	..	..	43·7
Pulluvar	..	..	..	..	43·4

Females.				Left cubit.
Kurumbar—Mullu	..	..	..	41·0
Izhuvan	..	..	..	41·0
Ernáden	..	..	..	41·0
Kanakkan—Pála	..	..	..	40·1
Kurumbar—Tén	..	..	..	40·1
Kanakkan—Patta	..	..	..	39·7
Polayan	..	..	..	38·9

Males.				Left hand middle finger.
Náyar—Vattakkád	..	..	..	11·9
Do. Kurup	..	..	..	11·5
Mukkuvan	..	..	..	11·2
Mala Náyar	..	..	..	11·2
Náyar—Súdra	..	..	..	11·1
Jew	..	..	..	11·1
Kurumbar—Mullu	..	..	..	11·0
North Malabar—Tíyan	..	..	..	11·0
South Malabar—Tíyan	..	..	..	11·0
Malayan—Paddi	..	..	..	11·0
Do. Patti	..	..	..	11·0
Kurichchiyan	..	..	..	10·9
Náyar—Akattu Chárna	..	..	..	10·9
Do. Group A	..	..	..	10·9
Do. Nambiyar	..	..	..	10·9
Izhuvan	..	..	..	10·8
Kurumbar—Bét	..	..	..	10·7
Náyar—Kiriyaatil	..	..	..	10·7
Do. Úráli	..	..	..	10·7
Irulan	..	..	..	10·7
Ernáden	..	..	..	10·7
Hill Polayan	..	..	..	10·6
Nambútiri	..	..	..	10·5
Náyar—Purattu Chárna	..	..	..	10·5
Kátar	..	..	..	10·5
Polayan	..	..	..	10·4
Kanakkan—Patta	..	..	..	10·4
Do. Pála	..	..	..	10·4
Kurumbar—Tén	..	..	..	10·4
Pulluvar	..	..	..	10·4

Females.				Left hand middle finger.
Kurumbar—Mullu	..	..	..	10·3
Izhuvan	..	..	..	10·25
Ernáden	..	..	..	9·9

Females—cont.					Left hand middle finger.
Kanakkan—Pála	..	..	..	..	9.8
Do. Patta	..	..	..	..	9.6
Kurumbar—Tèn	..	..	..	..	9.5
Polayan	..	..	..	..	9.4

Males.					Hips.
Jew	..	..	..	..	28.1
Náyar—Kurup	..	..	..	..	26.4
Do. Vattakkád	..	..	..	..	26.3
Nambútiri	..	..	..	..	26.2
Náyar—Kiriyañtil	..	..	..	..	26.0
Do. Súdra	..	..	..	..	26.0
Do. Úráli	..	..	..	..	26.0
Do. Akattu Chárna	..	..	..	..	25.9
North Malabar Týan	..	..	..	..	25.7
Náyar Purattu Chárna	..	..	..	..	25.7
Malayan—Patti	..	..	..	..	25.65
Mukkuvan	..	..	..	..	25.6
Náyar—Group A	..	..	..	..	25.6
Mala Náyar	..	..	..	..	25.5
Náyar—Nambiyar	..	..	..	..	25.4
South Malabar Týan	..	..	..	..	25.4
Kátar	..	..	..	..	25.1
Ernáden	..	..	..	..	24.95
Kurichchiyan	..	..	..	..	24.8
Kurumbar—Mullu	..	..	..	..	24.8
Pulluvar	..	..	..	..	24.8
Irulan	..	..	..	..	24.8
Izhuvan	..	..	..	..	24.7
Malayan—Paddi	..	..	..	..	24.65
Hill Polayan	..	..	..	..	24.6
Kanakkan—Patta	..	..	..	..	24.5
Do. Pála	..	..	..	..	24.3
Kurumbar—Tèn	..	..	..	..	23.8
Polayan	..	..	..	..	23.8
Kurumbar—Bèt	..	..	..	..	23.4

Males.					Hips greater than length of left foot.
Jew	..	..	..	..	2.9
Ernáden	..	..	..	..	1.8
Nambútiri	..	..	..	..	1.7
Náyar—Úráli	..	..	..	..	1.3
Kátar	..	..	..	..	1.0

0

Males—cont.				Hips greater than length of left foot.
Nāyar—Akattu Chârna	..	..	..	0·8
Hill Polayan	..	..	..	0·8
Nāyar—Kiriyaṭṭil	..	..	..	0·7
Do. Sûdra	..	..	..	0·7
Kanakkan Patta	..	..	..	0·7
Nāyar—Vattakkâd	..	..	..	0·6
Pulluvar	..	..	..	0·6
North Malabar Tīyan	..	..	..	0·5
Kanakkan Pâla	..	..	..	0·5
Malayan—Patti	..	..	..	0·5
Kurumbar—Mullu	..	..	..	0·4
Nāyar—Purattu Chârna	..	..	..	0·4
Irular	..	..	..	0·3
South Malabar Tīyan	..	..	..	0·2
Nāyar—Group A	..	..	..	0·2
Do. Nambiyar	..	..	..	0·2
Kurumbar—Tēn	..	..	..	0·2
Īzhuvan	..	..	..	0·1
Mala Nāyar	..	..	..	0·1
				Length of left foot greater than Hips.
Malayan—Paddi	..	..	..	1·0
Kurumbar—Bét	..	..	..	0·3
Kurichchiyar	..	..	..	0·1
Polayan	..	..	..	0·1

Note.—Width of hips and length of left foot are equal in—

Mukkuvan.

| Nāyar—Kurup.

In the Kurup Nāyar there is, however, a minute decimal in favour of the hips.

Males.				Left foot length.
Nāyar—Kurup	..	..	..	26·4
Do. Vattakkâd	..	..	..	25·7
Mukkuvan	..	..	..	25·6
Paddi Malayan	..	..	..	25·6
North Malabar Tīyan	..	..	..	25·4
Nāyar—Group A	..	..	..	25·4
Mala Nāyar	..	..	..	25·4
Nāyar—Kiriyaṭṭil	..	..	..	25·3
Do. Sûdra	..	..	..	25·3
Do. Purattu Chârna	..	..	..	25·3

Males—cont.					Left foot length.
South Malabar Tíyan	..	..	..	..	25·2
Náyar—Nambiyar	..	..	..	..	25·2
Jew	..	..	..	..	25·2
Malayan—Patti	..	..	..	..	25·2
Náyar—Akattu Chárna	..	..	..	..	25·1
Kurichchiyar	..	..	..	..	24·9
Náyar—Úráli	..	..	..	..	24·7
Ízhuvan	..	..	..	..	24·6
Nambútiri	..	..	..	..	24·5
Irular	..	..	..	..	24·5
Kurumbar—Muḷlu	..	..	..	..	24·4
Pulluvar	..	..	..	..	24·2
Kátar	..	..	..	..	24·1
Polayan	..	..	..	..	23·9
Kanakkan—Patta	..	..	..	..	23·8
Do. Pála	..	..	..	..	23·8
Hill Polayan	..	..	..	..	23·8
Kurumbar—Bêt	..	..	..	..	23·7
Do. Têñ	..	..	..	..	23·6
Ernáden	..	..	..	..	23·2

Females.					Left foot length.
Izhuvan	..	..	..	..	22·5
Kurumbar—Muḷlu	..	..	..	..	22·4
Kanakkan—Pála	..	..	..	..	21·9
Do. Patta	..	..	..	..	21·5
Ernáden	..	..	..	..	21·3
Polayan	..	..	..	..	21·2
Kurumbar—Tên	..	..	..	..	21·0

Males.					Left foot width.
Kátar	..	..	..	..	9·4
Jew	..	..	..	..	9·3
Kurichchiyar	..	..	..	..	8·9
Náyar—Súdra	..	..	..	..	8·9
Do. Vattakkád	..	..	..	..	8·9
Malayan—Patti	..	..	..	..	8·9
Ernáden	..	..	..	..	8·9
Náyar—Kurup	..	..	..	..	8·8
Malayan—Paddi	..	..	..	..	8·8
South Malabar Tíyan	..	..	..	..	8·8
Náyar—Kiriyaṭṭil	..	..	..	..	8·8
Do. Akattu Chárna	..	..	..	..	8·8
Izhuvan	..	..	..	..	8·7
Irular	..	..	..	..	8·7

Males.				Left foot length.
Nayar—Purattu Chârna	..	..	..	8·7
Do. Úráli	..	..	..	8·7
Do. Group A	..	..	..	8·7
North Malabar Tíyan	..	..	..	8·6
Nayar—Nambiyar	..	..	..	8·6
Mala Nayar	..	..	..	8·6
Pulluvar	..	..	..	8·6
Nambútiri	..	..	..	8·5
Kurumbar—Mullu	..	..	..	8·4
Kanakkan—Pála	..	..	..	8·4
Polayan	..	..	..	8·3
Kurumbar—Tén	..	..	..	8·3
Mukkuvan	..	..	..	8·2
Kanakkan—Patta	..	..	..	8·2
Hill Polayan	..	..	..	8·2
Kurumbar—Bét	..	..	..	7·9

Females.				Left foot width.
Kurumbar—Mullu	..	..	..	7·7
Polayan	..	..	..	7·5
Izhuvan	..	..	..	7·5
Kanakkan—Pála	..	..	..	7·4
Do. Patta	..	..	..	7·3
Ernáden	..	..	..	7·3
Kurumbar—Tén	..	..	..	7·3

Males.				Left hand length.
Nayar—Kurup	..	..	..	19·3
Malayan—Paddi	..	..	..	19·0
Do. Patti	..	..	..	18·9
Mala Nayar	..	..	..	18·9
North Malabar Tíyan	..	..	..	18·7
Mukkuvan	..	..	..	18·7
Jew	..	..	..	18·7
Nayar—Vattakkád	..	..	..	18·7
Do. Súdra	..	..	..	18·7
South Malabar Tíyan	..	..	..	18·6
Kurumbar—Mullu	..	..	..	18·6
Kurichchiyar	..	..	..	18·5
Nayar—Kiriattil	..	..	..	18·5
Do. Purattu Chârna	..	..	..	18·5
Do. Akattu Chârna	..	..	..	18·4
Do. Group A	..	..	..	18·4
Do. Nambiyar	..	..	..	18·4

Males—cont.					Left hand length.
Ernáden	..	..	..	..	18·3
Iralar	..	..	..	..	18·2
Izhuvan	..	..	..	..	18·0
Nambútiri	..	..	..	..	18·0
Náyar—Úráli	..	..	..	..	17·8
Kurumbar—Bét	..	..	..	..	17·7
Hill Polayan	..	..	..	..	17·7
Pulluvar	..	..	..	..	17·7
Polayan	..	..	..	..	17·6
Kátar	..	..	..	..	17·6
Kurumbar—Tén	..	..	..	..	17·45
Kanakkan—Patta	..	..	..	..	17·4
Do. Pála	..	..	..	..	17·0

Females.					Left hand. length.
Kurumbar—Mullu	..	..	..	..	17·6
Ernáden	..	..	..	..	17·3
Izhuvan	..	..	..	..	17·0
Kanakkan—Pála	..	..	..	..	16·3
Kurumbar—Tén	..	..	..	..	16·0
Kanakkan—Patta	..	..	..	..	15·9
Polayan	..	..	..	..	15·5

Males.					Left hand width.
Malayan—Patti	..	..	..	..	8·8
Náyar—Kiriyaatil	..	..	..	..	8·2
Izhuvan	..	..	..	..	8·2
Náyar—Vattakkád	..	..	..	..	8·2
Do. Kurup	..	..	..	..	8·2
North Malabar Tiyan	..	..	..	..	8·1
South Malabar Tiyan	..	..	..	..	8·1
Náyar—Súdra	..	..	..	..	8·1
Jew	..	..	..	..	8·1
Náyar—Akattu Chárna	..	..	..	..	8·0
Mala Náyar	..	..	..	..	8·0
Náyar—Group A	..	..	..	..	8·0
Do. Úráli	..	..	..	..	7·9
Do. Purattu Chárna	..	..	..	..	7·9
Mukkuvan	..	..	..	..	7·9
Ernáden	..	..	..	..	7·9
Malayan—Paddi	..	..	..	..	7·9
Nambútiri	..	..	..	..	7·8
Náyar—Nambiyar	..	..	..	..	7·8
Kurichchiyar	..	..	..	..	7·8
Polayan	..	..	..	..	7·8

Males—cont.					Left hand width.
Irular	..	..	..	..	7·8
Kanakkan—Pála	..	..	..	..	7·8
Kurumbar—Tèn	..	..	..	..	7·8
Do. Bêt	..	..	..	..	7·7
Kanakkan—Patta	..	..	..	..	7·7
Hill Polayan	..	..	..	..	7·6
Kátar	..	..	..	..	7·5
Kurumbar—Mullu	..	..	..	..	7·4
Pulluvar	..	..	..	..	7·4

Females.					Left hand width.
Kurumbar—Mullu	..	..	..	..	7·1
Izhuvan	..	..	..	..	7·1
Ernáden	..	..	..	..	7·1
Kanakkan—Pála	..	..	..	..	6·9
Polayan	..	..	..	..	6·9
Kurumbar—Tèn	..	..	..	..	6·8
Kanakkan—Patta	..	..	..	..	6·7

Males.					Cephalic index : from the mean of indices.
Ernáden	..	..	..	..	80·9
Malayan—Patti	..	..	..	..	78·7
Jew	..	..	..	..	77·9
Kurumbar—Tèn	..	..	..	..	77·0
Kurichchiyar	..	..	..	..	76·7
Kurumbar—Bêt	..	..	..	..	76·6
Nambútiri	..	..	..	..	76·3
Mukkuvan	..	..	..	..	75·4
Irular	..	..	..	..	75·0
Pulluvar	..	..	..	..	74·5
Kanakkan—Pála	..	..	..	..	74·5
Do. Patta	..	..	..	..	74·4
Náyar—Group A	..	..	..	..	74·3
Mala Náyar	..	..	..	..	74·3
Náyar—Vattakkád	..	..	..	..	74·1
Malayan—Paddi	..	..	..	..	73·9
North Malabar Tiyan	..	..	..	..	73·8
Náyar—Súdra	..	..	..	..	73·8
Do. Nambiyar	..	..	..	..	73·7
Polayan	..	..	..	..	73·4
Náyar—Kiriyaatil	..	..	..	..	73·1
Do. Úráli	..	..	..	..	72·9
Kátar	..	..	..	..	72·9
Náyar—Akattu Chârna	..	..	..	..	72·8

Males—cont.				Cephalic index from the mean of indices.
Ízhuvan	..	..	..	72.7
South Malabar Tíyan	..	..	..	72.4
Hill Polayan	..	..	..	72.4
Náyar—Purattu Chârna	..	..	..	72.2
Do. Kurup	..	..	..	72.0
Kurumbar—Muḷlu	..	..	..	70.3

Females.				Cephalic index : from the mean of indices.
Ernáden	..	..	..	78.3
Kurumbar—Tén	..	..	..	77.5
Kanakkan—Patta	..	..	..	75.7
Polayan	..	..	..	74.9
Kurumbar—Muḷlu	..	..	..	73.5
Kanakkan—Pála	..	..	..	72.7
Ízhuvan	..	..	..	72.5

Males.				Cephalic length.
Náyar—Purattu Chârna	..	..	..	19.5
Do. Kurup	..	..	..	19.5
Kurumbar—Muḷlu	..	..	..	19.3
South Malabar Tíyan	..	..	..	19.3
Jew	..	..	..	19.3
Nambútiri	..	..	..	19.2
Náyar—Súdra	..	..	..	19.2
Do. Úráli	..	..	..	19.2
Do. Vattakkád	..	..	..	19.2
Do. Nambiyar	..	..	..	19.2
Hill Polayan	..	..	..	19.2
Ízhuvan	..	..	..	19.1
Náyar—Akattu Chârna	..	..	..	19.1
Pulluvar	..	..	..	19.1
North Malabar Tíyan	..	..	..	19.0
Náyar—Kiriyaṭtil	..	..	..	19.0
Do. Group A	..	..	..	19.0
Mukkuvan	..	..	..	18.9
Polayan	..	..	..	18.8
Mala Náyar	..	..	..	18.8
Malayan—Paddi	..	..	..	18.8
Kátar	..	..	..	18.8
Kanakkan—Patta	..	..	..	18.6
Do. Pála	..	..	..	18.5
Kurichchiyar	..	..	..	18.3
Irulan	..	..	..	18.2
Kurumbar—Tén	..	..	..	18.2

	Males—cont.				Cephalic length.
Malayan—Patti	17·9
Kurumbar—Bêt	17·9
Ernáden	17·65

	Females.				Cephalic length.
Ízhuvan	18·45
Kurumbar—Mullu	18·2
Kanakkan—Pála	18·0
Do. Patta	17·6
Polayan	17·5
Kurumbar—Tên	17·3
Ernáden	17·0

	Males.				Biszygomatio.
Jew	13·8
Malayan—Patti	13·5
Nambútiri	13·2
Náyar—Úráli	13·2
Hill Polayan	13·2
Ernáden	13·15
North Malabar Tíyan	13·1
Mukkuvan	13·1
Kurichchiyar	13·1
Náyar—Súdra	13·1
Do. Vattakkád	13·1
Do. Kurup	13·1
Malayan—Paddi	13·1
Kurumbar—Tên	13·1
Náyar—Kiriyaatil	13·0
South Malabar Tíyan	13·0
Polayan	13·0
Náyar—Purattu Chârna	13·0
Do. Akattu Chârna	13·0
Do. Nambiyar	13·0
Írular	13·0
Ízhuvan	12·9
Pulluvar	12·9
Mala Náyar	12·9
Kurumbar—Mullu	12·8
Náyar—Group A	12·8
Kanakkan—Patta	12·8
Kátar	12·8
Kanakkan—Pála	12·7
Kurumbar—Bêt	12·7

Females.				Biaygomatio.
Kurumbar--Mullu	..	..	..	12·8
Izhuvan	..	..	..	12·4
Kanakkan--Patta	..	..	..	12·1
Ernáden	..	..	..	12·1
Kurumbar--Tên	..	..	..	12·1
Polayan	..	..	..	12·0
Kanakkan--Pála	..	..	..	11·9

Males.				Bigoniao.
Jew	..	..	..	10·9
Nambútiri	..	..	..	10·6
Mukkuvan	..	..	..	10·5
Náyar--Súdra	..	..	..	10·5
Do. Úráli	..	..	..	10·5
Do. Akattu Chârna	..	..	..	10·5
Do. Vattakkád	..	..	..	10·5
Pulluvar	..	..	..	10·5
Hill Polayan	..	..	..	10·5
Náyar--Kiriyaatil	..	..	..	10·4
Kurumbar--Bêt	..	..	..	10·4
Irular	..	..	..	10·4
Kátar	..	..	..	10·4
Mala Náyar	..	..	..	10·4
Malayan--Paddi	..	..	..	10·35
North Malabar Tíyan	..	..	..	10·3
Izhuvan	..	..	..	10·3
Polayan	..	..	..	10·3
Kurumbar--Mullu	..	..	..	10·3
Kurichchiar	..	..	..	10·3
Náyar--Nambiyar	..	..	..	10·3
Do. Purattu Chârna	..	..	..	10·3
Do. Kurup	..	..	..	10·3
Kanakkan--Patta	..	..	..	10·3
Malayan--Patti	..	..	..	10·3
South Malabar Tíyan	..	..	..	10·2
Náyar--Group A	..	..	..	10·2
Ernáden	..	..	..	10·1
Kanakkan--Pála	..	..	..	10·0
Kurumbar--Tên	..	..	..	9·8

Females.				Bigoniao.
Kurumbar--Mullu	..	..	..	10·0
Kanakkan--Patta	..	..	..	9·7
Do. Pála	..	..	..	9·5
Ernáden	..	..	..	9·5
Polayan	..	..	..	9·4
Izhuvan	..	..	..	9·4
Kurumbar--Tên	..	..	..	9·3

Males.					Maxillo-zygomatic index : from mean of indices.
Pulluvar .. .. .	..	..	..	..	81·3
Nâyar—Akattu Chârna .. .. .	..	..	..	..	81·2
Kâtar .. .. .	..	..	..	..	81·0
Kurumbar—Bêt .. .. .	..	..	..	..	80·8
Mala Nâyar .. .. .	..	..	..	..	80·7
Nâyar—Úráli .. .. .	..	..	..	..	80·6
Nambútiri .. .. .	..	..	..	..	80·4
Kurumbar—Mullu .. .. .	..	..	..	..	80·4
Nâyar—Súdra .. .. .	..	..	..	..	80·3
Do. Kiriyaatil .. .. .	..	..	..	..	80·1
Do. Vattakkád .. .. .	..	..	..	..	80·1
Kanakkan—Patta .. .. .	..	..	..	..	79·9
Ízhuvan .. .. .	..	..	..	..	79·7
Nâyar—Kurup .. .. .	..	..	..	..	79·6
Do. Purattu Chârna .. .. .	..	..	..	..	79·5
Polayan .. .. .	..	..	..	..	79·5
Mukkuvan .. .. .	..	..	..	..	79·4
Irular .. .. .	..	..	..	..	79·2
Nâyar—Nambiyar .. .. .	..	..	..	..	79·2
Hill Polayan .. .. .	..	..	..	..	79·2
Nâyar—Group A .. .. .	..	..	..	..	79·1
Malayan—Paddi .. .. .	..	..	..	..	79·0
Jew .. .. .	..	..	..	..	78·7
Kanakkan—Pâla .. .. .	..	..	..	..	78·7
South Malabar Tiyan .. .. .	..	..	..	..	78·5
North Malabar Tiyan .. .. .	..	..	..	..	78·3
Kurichchiyar .. .. .	..	..	..	..	78·0
Ernáden .. .. .	..	..	..	..	77·0
Malayan—Patti .. .. .	..	..	..	..	76·4
Kurumbar—Tên .. .. .	..	..	..	..	75·4

Females.					Maxillo-zygomatic index : from the averages of indices.
Kanakkan—Patta .. .. .	..	..	..	..	79·8
Do. Pâla .. .. .	..	..	..	..	79·4
Polayan .. .. .	..	..	..	..	78·8
Ernáden .. .. .	..	..	..	..	78·5
Kurumbar—Mullu .. .. .	..	..	..	..	77·9
Do. Tên .. .. .	..	..	..	..	76·6
Ízhuvan .. .. .	..	..	..	..	75·7

Males.					Nasal height.
Jew .. .. .	..	..	..	..	5·4
Nambútiri .. .. .	..	..	..	..	4·9
Nâyar—Vattakkád .. .. .	..	..	..	..	4·9

Males—cont.				Nasal height.	
Nāyar—Úráli	4·8
Do. Purattu Chârna	4·8
Do. Group A	4·8
Do. Nambiyar	4·8
Do. Kurup	4·8
Do. Kiriyaatil	4·7
Do. Sûdra	4·7
North Malabar Tīyan	4·7
South Malabar Tīyan	4·7
Nāyar—Akattu Chârna	4·7
Pulluvar	4·5
Ízhuvan	4·4
Mala Nāyar	4·4
Kátar	4·4
Kurichchiyar	4·3
Irular	4·3
Malayan—Patti	4·3
Hill Polayan	4·3
Kanakkan—Pála	4·3
Do. Patta	4·2
Mukkuvar	4·2
Kurumbar—Muḷḷu	4·2
Malayan—Paddi	4·2
Ernáden	4·0
Polayan	4·0
Kurumbar—Bêt	4·0
Do. Tèn	3·9
Females.				Nasal height.	
Ízhuvan	4·05
Kurumbar—Muḷḷu	3·9
Polayan	3·7
Kanakkan—Patta	3·6
Kurumbar—Tèn	3·4
Ernáden	3·4
Kanakkan—Pála	3·4
Males.				Nasal width.	
Kátar	3·9
Polayan	3·8
Kurumbar—Bêt	3·8
Do. Tèn	3·8
Mala Nāyar	3·8
Malayan—Paddi	3·8
Do. Patti	3·8
Pulluvar	3·7
Kanakkan—Pála	3·7
Irular	3·7

Males— <i>cont.</i>				Nasal width.
Nāyar—Kurup	..	..	..	3·7
Do. Nambiyar	..	..	..	3·7
Do. Group A	..	..	..	3·7
Do. Sûdra	..	..	..	3·7
Do. Kiriyaatil	..	..	..	3·7
Mukkuvan	..	..	..	3·7
North Malabar Tīyan	..	..	..	3·7
South Malabar Tīyan	..	..	..	3·7
Izhuva	..	..	..	3·7
Kurichehiyar	..	..	..	3·7
Nambútiri	..	..	..	3·7
Kurumbar—Mullu	..	..	..	3·6
Hill Polayan	..	..	..	3·6
Nāyar—Úráli	..	..	..	3·6
Do. Purattu Chârna	..	..	..	3·6
Do. Akattu Chârna	..	..	..	3·6
Do. Vattakkád	..	..	..	3·5
Kanakkan—Patta	..	..	..	3·5
Ernáden	..	..	..	3·5
Jew	..	..	..	3·3

Females.				Nasal width.
Kurumbar—Tên	..	..	..	3·4
Do. Mullu	..	..	..	3·4
Kanakkan—Patta	..	..	..	3·3
Polayan	..	..	..	3·3
Izhuva	..	..	..	3·3
Kanakkan—Pâla	..	..	..	3·2
Ernáden	..	..	..	3·2

NOTE.—Nambútiri (except the Jew) has the longest nose, relatively and actually, but not the narrowest.

Males.				Nasal Index: Average of indices.
Kurumbar—Tên	..	..	..	96·8
Do. Bêt	..	..	..	95·8
Polayan	..	..	..	94·1
Malayan—Paddi	..	..	..	92·4
Ernáden	..	..	..	88·4
Kanakkan—Pâla	..	..	..	87·7
Irular	..	..	..	87·6
Kátar	..	..	..	87·5
Kurichehiyar	..	..	..	87·4
Mukkuvan	..	..	..	87·1
Kurumbar—Mullu	..	..	..	86·9
Malayan—Patti	..	..	..	86·8
Mala Nāyar	..	..	..	85·7
Hill Polayan	..	..	..	84·0

Males—cont.				Nasal Index: Average of indices.
Kanakkan—Patta	..	..	..	83.7
Izhuvan	..	..	..	82.5
Pulluvar	..	..	..	82.1
Nayar—Súdra	..	..	..	79.4
South Malabar Tiyan	..	..	..	78.9
Nayar—Kiriyaatil	..	..	..	78.8
North Malabar Tiyan	..	..	..	77.7
Nayar—Nambiyar	..	..	..	77.3
Do. Akattu Chârna	..	..	..	77.0
Do. Purattu Chârna	..	..	..	76.8
Do. Group A	..	..	..	76.8
Do. Kurup	..	..	..	76.2
Do. Úráli	..	..	..	75.5
Nambútiri	..	..	..	75.5
Nayar—Vattakkád	..	..	..	71.4
Jew	..	..	..	61.5

Females.				Nasal index: Average of indices.
Kurumbar—Tén	..	..	..	100.7
Kanakkan—Pála	..	..	..	95.6
Ernáden	..	..	..	93.4
Kanakkan—Patta	..	..	..	91.6
Polayan	..	..	..	89.7
Kurumbar—Mullu	..	..	..	86.7
Izhuvan	..	..	..	80.7

NOTE.—That the nasal index of Polayan women is less than that of Polayan men is somewhat remarkable.

The index of one Nambútiri measured is 93.2. He should have been excluded, for it is impossible to believe his father was a pure bred Nambútiri. There should be a bar sinister in his escutcheon, if he had one.

Males.				Vertex to tragus.
Kurumbar—Mullu	..	..	..	13.5
Mukkuvan	..	..	..	13.5
Kurichchiyar	..	..	..	13.3
Jew	..	..	..	13.3
Nayar—Súdra	..	..	..	13.3
Do. Kurup	..	..	..	13.2
Mala Nayar	..	..	..	13.2
Nambútiri	..	..	..	13.2
Nayar—Purattu Chârna	..	..	..	13.1
Do. Vattakkád	..	..	..	13.1
North Malabar Tiyan	..	..	..	13.0
South Malabar Tiyan	..	..	..	13.0
Nayar—Nambiyar	..	..	..	13.0

Males—cont.				Vertex to chin.
Nâyar—Kiriyaatil	..	..	..	12·9
Do. Úráli	..	..	..	12·9
Do. Akattu Chârna	..	..	..	12·9
Kanakkan—Pâtta	..	..	..	12·9
Kurumbar—Bêt	..	..	..	12·8
Nâyar—Group A	..	..	..	12·8
Pulluvar	..	..	..	12·8
Ízhuvan	..	..	..	12·7
Kanakkan—Pâla	..	..	..	12·6
Malayan—Patti	..	..	..	12·6
Irulan	..	..	..	12·5
Polayan	..	..	..	12·4
Hill—Polayan	..	..	..	12·3
Malayan—Paddi	..	..	..	12·3
Ernáden	..	..	..	12·3
Kurumbar—Tên	..	..	..	12·3
Kátar	..	..	..	12·0

Females.				Vertex to tragus.
Kanakkan—Patta	..	..	..	12·9
Kurumbar—Muļlu	..	..	..	12·9
Kanakkan—Pâla	..	..	..	12·4
Polayan	..	..	..	12·1
Ízhuvan	..	..	..	11·9
Ernáden	..	..	..	11·8
Kurumbar—Tên	..	..	..	11·4

Males.				Vertex to tragus.
Mukkuvan	..	..	..	21·9
Kurumbar—Muļlu	..	..	..	20·5
Mala Nâyar	..	..	..	20·5
Nâyar—Kurup	..	..	..	20·3
Kanakkan—Patta	..	..	..	19·9
Jew	..	..	..	19·9
Nâyar—Úráli	..	..	..	19·9
Do. Purattu Chârna	..	..	..	19·8
Do. Vattakkád	..	..	..	19·8
North Malabar Tíyan	..	..	..	19·8
Nâyar—Group A	..	..	..	19·7
Do. Nambiyar	..	..	..	19·7
Do. Súdra	..	..	..	19·6
Do. Akattu Chârna	..	..	..	19·6
Kanakkan—Pâla	..	..	..	19·6
South Malabar Tíyan	..	..	..	19·4
Kurumbar—Bêt	..	..	..	19·3
Kurichhiyar	..	..	..	19·3

Males—cont.					Vertex to chin.
Nāyar—Kiriyaṭṭil	..	..	..	..	19·2
Nambūtiri	..	..	..	..	19·0
Īzhuvan	..	..	..	..	18·9
Ernáden	..	..	..	..	18·8
Malayan—Paddi	..	..	..	..	18·7
Hill Polayan	..	..	..	..	18·6
Kurumbar—Tēn	..	..	..	..	18·4
Polayan	..	..	..	..	18·2
Kátar	..	..	..	..	18·2
Pulluvar	..	..	..	..	17·9
Irular	..	..	..	..	17·7
Malayan—Patti	..	..	..	..	17·3

Females.					Vertex to chin.
Kanakkan—Pāla	..	..	..	..	19·6
Kurumbar—Muḷḷa	..	..	..	..	19·4
Kanakkan—Patta	..	..	..	..	19·2
Kurumbar—Tēn	..	..	..	..	18·6
Īzhuvan	..	..	..	..	18·35
Ernáden	..	..	..	..	18·0
Polayan	..	..	..	..	17·0

Males.					Middle finger to patella.
Jew	..	..	..	..	14·2
Kátar	..	..	..	..	12·0
Nāyar—Urāli	..	..	..	..	11·6
Pulluvar	..	..	..	..	11·0
Nāyar—Purattu Chārna	..	..	..	..	10·7
Nambūtiri	..	..	..	..	10·5
Nāyar—Nambiyar	..	..	..	..	10·4
Do. Súdra	..	..	..	..	9·9
Malayan—Paddi	..	..	..	..	9·9
Nāyar—Akattu Chārna	..	..	..	..	9·85
Do. Kiriyaṭṭil	..	..	..	..	9·7
Kanakkan—Patta	..	..	..	..	9·6
Nāyar—Vattakkád	..	..	..	..	9·4
Do. Kurup	..	..	..	..	9·2
North Malabar Tīyan	..	..	..	..	9·2
Irular	..	..	..	..	8·8
Nāyar—Group A	..	..	..	..	8·7
South Malabar—Tīyan	..	..	..	..	8·5
Malayan—Patti	..	..	..	..	8·4
Kanakkan—Pāla	..	..	..	..	8·3
Hill Polayan	..	..	..	..	8·1

Males—cont.					Middle finger to patella.
Ízhuvan	..	..	..	..	8·0
Kurumbar—Tén	..	..	..	..	7·6
Mala Nâyar *	..	..	..	..	7·0
Polayan	..	..	..	..	6·0

N.B.—Although there is a difference of but 3·7 between the statures of the Kátar and the Polayan, there is 6·0 between the distance from middle finger to patella.

The people of each caste will now be described separately, Nambútiris first, under the following heads or such of them as information is available in my notes :—

- (1) Designation, divisions, etc.
- (2) Appearance: face, figure, hair, etc.
- (3) Clothing, ornaments, etc.
- (4) Habitations.
- (5) Inheritance.
- (6) Food.
- (7) Livelihood.
- (8) Domestic animals—kept, tabooed, used, etc.
- (9) Magic; also sorcery.
- (10) Oaths and covenants.
- (11) Customs.
- (12) Religion.
- (13) Marriage.
- (14) Birth ceremonies—before and after.
- (15) Prolificness.
- (16) Death and succeeding ceremonies.
- (17) Legendary history.
- (18) Caste government.
- (19) Words or terms used by the caste and by no others;
also names of individuals.
- (20) Games.

* Three only.

NAMBÚTIRIS.

It is by no means easy to obtain information which is accurate respecting that exclusive caste of Bráhmans of the Malabar coast known as Nambútiris. Unlike the Bráhmans of the remainder of the Presidency, who so largely absorb all appointments under Government worth having, who engage in trade and in, one may say, every profitable profession and business, including the stage, the Nambútiris hold almost entirely aloof from what the poet Gray calls : " the busy world's ignoble strife," and more than any class of Bráhmans retain their sacerdotal position, which is of course the highest. They are for the most part landholders. A very large portion of Malabar is owned by the Nambútiris ; in Walluvanad especially, most of which taluk is the property of Nambútiris. They are the aristocracy of the land, marked most impressively by two characteristics—exclusiveness and simplicity. Now and then a Nambútiri journeys to Benares, but as a rule he remains at home. I have met several who never before in their life had left the little space around their own habitation. Their simplicity is really proverbial,* and they are, of all people I have known in India, excepting only the wildest jungle people who have never come within touch of them, the least influenced by contact with the English. This contact, which has influenced every other caste or race, has left the Nambútiri just where he was before the English knew India. He is perhaps, as his measures seem to prove, the truest Aryan in Southern India, and not only physically, but in his customs, habits, ceremonies, which are so welded into him that forsake them he cannot if he would.

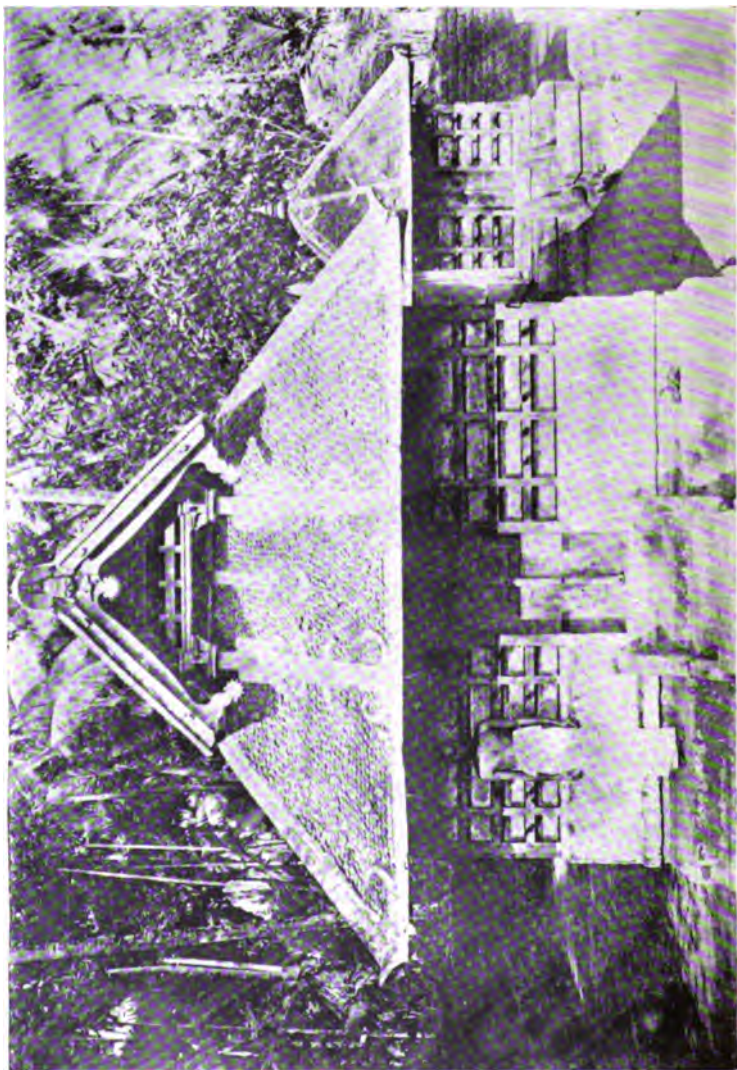
(1) *Designation.*—*Nambútiri*, it is said, comes from " Nambi," trustworthy or wise, and " tiri," a light. Tiri occurs again in Embrántiri, as is called a class of Bráhmans

* The Nambútiris everywhere believe that Europeans have tails. They have admitted this belief to me. Another belief of theirs in respect of European men is well known, but it is now so long since the days of Pantagruel that it cannot be shaped in words in these pages. Rabelais would have made sport with it.

in South Canara, many of whom are to be seen in Malabar. But derivations are too often doubtful, and this is as doubtful as any.

Divisions.—Nambútiri and Nambútirippád. The latter are supposed to be stricter, and to rank higher than the former. It is said generally, when Nambútiris are under discussion, that marriage of the eldest son only is the inviolable rule, but many Nambútiris have told me that the eldest son *must* marry, while the others *may*; but the issue of younger brothers cannot inherit the family property. Marriages other than that of the eldest son are at all events extremely rare; perhaps induced by the difficulty in obtaining brides—for who would give his daughter when her children could inherit nothing?—and those who are not married content themselves with Náyar women. Many of the wealthier Náyar families give their women to Nambútiris only. But this is a part of the subject which will find place under the head ‘marriage.’

To return to the two divisions which have been named, ‘pád’, meaning power or authority, is often used to all Nambútiris when addressing them; thus, some called Nambútirippáds may be really Nambútiris. It may not be strictly correct to divide the Nambútiris thus, for neither so-called division is separated from the other by interdiction of marriage. The class distinctions are more properly denoted the Ādhyān and Āsyan, of which the former is the higher. An Ādhyān is never a priest; he is a being above even such functions as are sacerdotal in the temple. But there are also divisions according to the (number of) yāgams or sacrifices performed by individuals thus: Sômatiri or Sômayāji, Akkittiri or Agnihôtri, and Adittiri. A man may reach the first stage of these three and become an Adittiripád by going through a certain ceremony. At this three Vaidikars or men well versed in the Vêdas, Nambútiris of course, must officiate. A square pit is made. The Nambútiris refused to tell me the dimensions of this pit, for which they have sastraic authority. Fire raised by friction between two pieces of the peepul-tree (*Ficus religiosa*) with a little cotton is placed in it. This fire is called Anpāsana. We shall hear of it again under ‘marriage.’ This ceremony cannot be done until *after* marriage. The Adittiripád who told me so much refused to describe the ceremonial in detail. But it is only those of certain gôtrams who may perform yāgams, and by so doing acquire the three personal



TEMPLE OF AIYAPPAN, NEAR CALICUT.

distinctions named already. Again, there are other divisions according to professions, but so far as my information goes, none of these divisions mentioned is outside any prohibition of marriage with the others. All these are sub-sects of the Āsyans, viz.—

- (a) Bhattavrittikar, or Bhattêrippâd.
- (b) Vádhyáu or Otikkón—teacher.
- (c) Vaidican or Mimámsakar—a sort of head among paróhīts.
- (d) Smártan—a Brahman lawyer, whose special duty it is to investigate in affairs of improper sexual relations; but they do not decide.
- (e) Tantri—consecrator of idols: hereditary.
- (f) Sántikkáran—temple priest; not hereditary; taken from the poorer class of Nambútiris.
- (g) Mússad—physician. There are 8 families of Nambútiris in Malabar, in which the office of physician is hereditary. The Mússads are sometimes classed as Nambútiris, but wrongly I think. They are somewhat inferior, and cannot marry with the others named. But they must not be confounded with the still inferior Mússads, whose duty it is on certain occasions to eat meat and drink liquor.
- (h) Grámani—original landholders. It is said some Nambútiris received gifts of land from Parasurâma. Their descendants are the Grámani, and are held inferior owing to their having accepted gifts of land—earth! There is nothing derogatory in receiving gifts of money—Dakshina.

The Nambidis were perhaps Nambútiris at one time, but they are not now; and the Ūrilparisha Mússads and the Elayads, priests of the Náyers, though sometimes classed as Nambútiris, do not really belong to them.

(2) *Appearance, Face, Figure, Hair, etc.*—It will be convenient to group together here the measures of the 25 individuals from which the averages have been taken—

	Averages of		Averages of 25 to stature = 100.	
	10	25		
Height ...	161.4	162.3	...	The long bone of the thigh, which is 30.1, and to stature = 100, 22.2, is in the Nambútiri, relatively shorter than in any other people of Malabar.
Do. sitting ...	82.8	84.7	51.6	
Do. kneeling ...	120.3	120.8	74.4	
Span ...	170.4	170.0	104.6	
Chest ...	85.1	83.7	51.0	
Shoulders ...	41.0	40.7	25.1	
Left cubit ...	44.4	44.2	27.2	
Left hand length ...	18.2	18.0	11.1	
Left hand width ...	7.9	7.8	43.3	
Left middle finger.	10.6	10.5	6.5	
Hips ...	26.0	26.2	16.1	<i>Figure.</i> —Medium generally; medium to stout sometimes; stout in one.
Left foot, length ...	24.5	24.5	15.1	
Left foot, width ...	8.4	8.5	34.7	
Cephalic length ...	19.4	19.2	11.8	
Do. width ...	14.4	14.6	...	
Do. index ...	74.2	76.3	...	
Bigoniac ...	10.6	10.6	...	
Bizygomatic ...	13.2	13.2	...	
Maxillo-zygomatic index ...	80.1	80.4	...	
Nasal height ...	4.8	4.9	3.03	
Do. width ...	3.7	3.7	2.28	
Do. index ...	75.8	75.5	...	
Vertex to tragus ...	13.0	13.2	8.1	
Do. chin ...	19.8	19.0	11.7	
Middle finger to patella ...	10.6	10.5	6.47	
Colour of skin	30:44:40	...	
Do. eyes ...	...	1:2	...
Weight ...	* 130.7 lbs.	...	...

N.B.—Colour of skin and eyes as per Broca's colour tables.

Eyes.—33 per cent. of those examined had eyes of M. Broca's colour type No. 1; 33 per cent. were of No. 2 of the same; and the remainder were for the most part between these two, but in two cases the colour was darker, *i.e.*, between 1 and 16.

Skin.—Something between 30.44 and 40 of M. Broca's colour types is the average colour of those examined. The darkest was of colour No. 28: the only one of this colour, though there was one other between 28 and 29. The fairest was of colour No. 40 on the body, while his face was No. 23; and, as this man appeared to be purest bred of all those examined, I give here his measures:—

* Of 9 individuals.

Name	..	..	..	Sankaran Nambútiri.	
Tarawád family	..	..	..	Kunhappan Kárákád.	
Gótram	..	..	..	Visvámitra.	
Occupation	..	..	..	Priest in the Tellicherry temple.	
Age	..	..	..		24
Height	..	..	..		164·3
Height, sitting	..	..	..		87·4
Do. kneeling	..	..	..		123·0
Span	..	..	..		174·7
Chest	..	..	..		83·0
Shoulders	..	..	..		40·4
Left cubit	..	..	..		45·5
Left hand, length	..	..	..		20·0
Do. width	..	..	..		7·9
Left mid finger	..	..	..		11·4
Hips	..	..	..		25·5
Left foot, length	..	..	..		26·9
Do. width	..	..	..		8·9
Cephalic length	..	..	..		20·0
Do. width	..	..	..		14·6
Do. index	..	..	..		73·0
Bigoniac	..	..	..		10·0
Bizygomatic	..	..	..		12·9
Maxillo-zygomatic index	..	..	..		77·5
Nasal height	..	..	..		5·2
Do. width	..	..	..		3·2
Do. index	..	..	..		61·5
Vertex to tragus	..	..	..		13·4
Do. to chin	..	..	..		20·6
Mid finger to patella	..	..	..		10·7
Colour of skin, M. (Broca)	..	..	..		40, Face 23.
Do. eyes	..	..	..		1
Weight	..	..	..		122 lbs.
Vision	..	..	..		Perfect.
Figure	..	..	..		Medium to slight.

A very fair man. Skin under the hair, which was jet black and abundant, quite white. The length of the foot being greater than the width of the hips is an abnormality. It will have been noticed that, excluding the Jew, there are but one people in Malabar, the Ernāden, of whom but a few were examined, in whom the width of the hips is greater than in the Nambútiri. In the people of most castes the difference between hips and foot is very trifling—in 19 it is less than one centimeter; while in people of two castes there is no difference at all, and in four the length of the foot is

greater than the width of the hips. Sankaran, whose individual measures have just been given, was among Nambútiris the only one the length of whose foot was greater than the width of his hips; (there was one, however, in which these were equal), and in his case the abnormality seems to be partly due to excessive length of the second toe. I have noted that, in measuring his foot, the length was taken to the extremity of the second toe, which was one centimeter longer than the great toe.

In one individual the shape of the face was distinctly pyramidal, and the broadest part of the head was a little before and above the ear. Another is noted as "like a Toda." In one out of twenty-five the chin was slightly prominent.

Hair.—Amongst the people of good caste in Malabar, to speak of one as a hairy man, is to speak of him reproachfully. Yet, putting Muhammadans out of count altogether, the highest of all, the Nambútiris are certainly the hairiest. Whence the idea arose cannot be considered at present; and however it may have arisen, no people are so averse, in a general way, to abundance of hair. In the young Nambútiri the hair on the head is plentiful, glossy and wavy. An oval patch, from the vertex or a little behind it to a little back from the forehead, the hair is allowed to grow. This is the regular Malabar fashion. The hair thus grown is done into a knot hanging over the forehead, or at one side according to fancy, never hanging behind. The rest of the head, and also the face is shaved. No moustache. The whole body, excepting the aforesaid top knot *and the back*, is shaved periodically. Gingelly-oil (enna) is used commonly for the hair. But, when the Nambútiri's wife is pregnant, he refrains from the barber, letting his hair grow as it will; and as he may have as many as four wives, and as he does not shave while one is in an interesting condition, he may sometimes have a long beard. A marked difference observable between the Nambútiri and those allied to him, and all those whom we will call conveniently the lower races, is this. The former have whiskers, a full growth of hair on the cheeks, while in the latter this is scanty or entirely absent. Also, while the Nambútiri has very commonly a hairy chest, the others have little or no hair on the chest. So too in the case of hair on the arms and legs. One Nambútiri examined by me had hair all over the body except over the ribs. On the other hand, the Nambútiri seems to become grey, or has a

tendency to baldness at a comparatively early age. In this respect it is not easy to compare him with the lower races whose individuals never know their age, whereas the Nambútiri always knows his precisely.

Hair on the arms and legs.—Most of those examined had been shaved. The growth is noted “moderate” as a rule. It is, however, not easy to vouch for the correctness of this note. No Nambútiri shaves at all during the month Karkkadakam. Karkkadakam, Kanni, Kumbham, and Dhānu are months in which shaving should be avoided as much as possible or convenient. A day more or less auspicious is always selected by the Nambútiri when he is to be shaved.

Women.—Hair is parted at the crown and drawn tight to the ears. Knot at the back. The use of false hair is recognized, and is common. Long hair is a common feminine beauty in Malabar, and probably the Nambútiri women have their share of it.

Excluding the Semitic Jew, the Nambútiri (male) may be said to be distinguishable among all those who have been examined thus :—

- (1) Long bone of the thigh is relatively the shortest.
- (2) Span is relatively the least excepting the Pulluvar, a degraded people who till lately made their marriages between brothers and sisters.
- (3) Chest is greatest, actually and relatively.
- (4) Weight is greatest.*
- (5) Shoulders widest, actually and relatively.
- (6) Left cubit relatively the shortest, excluding again the Pulluvar.
- (7) With one exception, the forest Katar—if he, for he has not been examined conclusively—his hips are relatively the widest.
- (8) Excluding the very broad faced Patti Malayan of the Neliampathi hills, who is apparently not a native of Malabar, he is widest across the cheek bones.
- (9) Jaw is the broadest.
- (10) His nose is relatively the longest.
- (11) One other has a fine nasal index.
- (12) He is the fairest in colour.
- (13) He is the hairiest.

* It was impossible to carry about a weighing machine, travelling as I was invariably, but it was sometimes possible to borrow one, and I find that the average weight of the Nambútiris is 130½ lbs. while the average in the case of 24 Náyars is but 114½ lbs. The others are still lighter.

Invariably well nourished. The Nambútiri in seldom lean.

(3) *Clothing and Ornaments.*—*Clothing*: males. The ordinary “*languti*” worn between the thighs, the ends fastened to a string round the waist at the back and at the front. Round the waist, and reaching a little below the knee, a cloth *having a border* 4 to 5 cubits in length. It is somewhat ostentatious to fasten this cloth rather higher than the waist, *i.e.*, about the pit of the stomach. A second cloth 3 or 4 cubits in length is worn thrown over the shoulders and chest; but this is not worn, as a rule, by the Nambútiri when he is at home. (See the illustration.) Silk cannot be worn; nor can a plain white cloth—it must have a border—or a coloured cloth. Sandals of wood; not leather. The “*Swāmiyārs*” are those of them who have given up the world, or are supposed to have done so. They always wear wooden shoes. Others do not always follow the rule strictly, but, whatever shoes they wear, the heel of the foot should not be covered. On certain occasions the Nambútiri wears a long under-cloth round the waist and round each leg separately. Lace-like cloths are worn sometimes by the rich.

Clothing: females.—A white cotton cloth, usually with a gold border, about 10 cubits in length, is fastened round the loins, twisted round the legs, reaching well below the knee, and also covering the chest. Nambútiri women are to be seen sometimes when travelling, under escort of course, but one cannot say more than that their costume is perfectly decent. They are never to be seen in or about their own houses. Strictly “*gosha*” they are called “*Antarjanam*” which signifies “the inside people,” the people who keep inside the house. A second cloth is now-a-days very often worn, but one only is orthodox as in the case of the Uriya women in Ganjām. Silk clothing is prohibited; so too coloured cloth, jackets and bodices.

Ornaments: males.—Tattooing is prohibited. According to one Nambútiri the ears must be pierced between the ages of 8 and 16, using as an instrument a thorn, but no ear rings can be worn. According to another the ears must be pierced before 10, and ear rings, the Malabar “*kadukkans*,” may be worn by the Akittiri and Somátiri, but they must be plain gold. The ears *must* be pierced, so another told me, before the individual may do the *kārma* ceremony.

The "thread" worn by men over the left shoulder is made of a triple string of country grown cotton (not English), and, unlike other Brāhmins of Southern India, no change is made after marriage. It may be changed on any auspicious day. Brāhmins of Southern India outside Malabar change their thread once a year.

The ornaments worn by one individual were—

Left hand.—(1) Golden ring with large green stone on first finger. (2) Four plain golden rings on third finger. (3) On little finger a ring in which was set an *Anavarāhan* coin. This is a very lucky ring. Spurious coins of this pattern are often set in rings, but it is the genuine ones which bring good luck.

Right hand.—On the third finger two plain gold rings, and one pavitram.

The pavitram is of about the thickness of an ordinary English wedding ring; a figure of 8-like figure having at each side a dotted pattern, the rest plain. It is made of gold; but, as every Nambūtiri must wear a pavitram while doing—performing, or undergoing—certain ceremonies, those who do not possess one of gold wear one made of darbha grass, a fresh one on each occasion. They do not say so, but I think the ring of darbha grass is orthodox.

Another individual wore a golden amulet case fastened to a string round the waist, in which was a talisman i.e., figure, a "yantram," written or marked on a silver plate. He had worn it three years, having put it on because he used to feel hot during the cool season, and attributed the circumstance to the influence of an evil spirit. This was to ward off the spirit's influence.

Here I will quote a note made by me, after taking photographs in the compound of the Naras Mana, the abode of the Naras Nambūtiri of the illustration. "Name, Narrāya Mangalatha Narsimham Nambūtiri, otherwise Chingan Nambūtiri, aged 79, and his grandson aged 12, named Agni Chēramān, but called Akkirāman. The son wears a skin sash over the left shoulder, one inch wide, fastened at the ends by a thong of the same skin—that of the Yak. He put it on when he was 7, and wears it until he is 15, when he will have completed his course of Vedic study. At 20 he will be married. The ring, hanging to a string in front of his throat called mōdiram, was put on in the sixth month when he was named, and will be worn until he

is 15. Ears were pierced when he was 8, but he can never wear ear rings. Wears two amulets at the back—one gold, one silver. In each are some chakkras,* and a golden leaf in which is inscribed a charm (mantram). One charm was prepared by a Máppila, the other by a Nambûtiri. He had been troubled by devils in early childhood, and so put on these to avert their influence. The Yak (Krishna Mrugam) is the beast whose tail is used by women in the place of (what we should call) false hair. Aliases to the names may be explained at once. Every Nambûtiri is given a certain name, *but he is never called by it*: he is *always* called by some pet name. The real name is in the horoscope, and is not used. The reason appears to lie in the prohibition to the Hindu wife to mention her husband's name. Sons are commonly called after the father, or grandfather; so to call the son by name would involve the mother or the grandmother naming her husband, and this she cannot do. So the boy is given a real name, while he is called by another. Chingan and Akkirāman are but alliteratives of Narsimham and Agni Chēramān. This applies to boys but not to girls, who are always called by their own name.

As coming under this head there may be included caste or such like marks—

Individual (1).—Black spot edged with yellow in the centre of forehead. Three horizontal white stripes on the forehead; a dab on each arm, and a stripe across the chest.

Individual (2).—Black spot near glabella. Two yellow stripes horizontally near it. The same on chest, the spot between the lines.

Individual (3).—Red spot 12 millimètre in diameter, and a white stripe on forehead. A red dab on sternum, and on each arm in front of the deltoid.

Individual (4).—Cream coloured spot with red centre; oval; an inch in greatest length; over the glabella.

The stripes on the forehead and chest are made generally with sandal wood paste. "Rudrāksha" necklaces (nuts of the *Elæocarpus Ganitrus*) mounted in gold are worn sometimes. These appear to be in some way emblematic of sacredness, but I am unable to say precisely in what way. Not merely ornamental.

* Small coin; silver; 28 to the rupee; still the current coinage of Travancore.

Ornaments : Females.—Tattooing is prohibited. In north Malabar golden bangles are worn as a rule—*pace* Mr. Logan. Bell metal or thin brass bangles, such as are in my collection, of which as many as 21 may be worn at a time,



are usual in south Malabar. These bell metal bangles are often worn so as to cover the forearm. Gold and silver ear rings are worn. The ornaments worn by Nambútiri women are chiefly, if not altogether, of a pattern or kind which can be worn by women of no other caste. A distinctive necklace is that, a part of which is in my collection. (gold.) A number of these pieces are strung together, forming a

necklace, which is worn loose over the breast. Widows retain most if not all of their ornaments, nor is their head shaved. An ornament, cup-like in shape, called *chùdamani* is worn on the knot of hair at the back of the head sometimes. Lobes of the ears hang somewhat long. The nose is never pierced ; no ornament is ever worn in the nose.

Three stripes of sandal wood paste across the forehead, to which is sometimes added a saffron dab over the nose. The face is sometimes, on festive occasions, smeared with turmeric. It is a mistake, as said usually, that this is never done. Eye salve or lamp black is used for the eyes.

Habitations.—Malabar is the most populous district in the Madras Presidency, while parts of it form the most populous rural tract known in the world ; by far the most. Towns are few, and so are villages : and, even where these exist, they do not represent the agglomerated communities to be seen to the eastward. Usually a few shops, and Mappilas' houses. For the most part the people of Malabar live each in his own house, standing in his own paramba or compound. So the whole province may be said to be parcelled out into compounds or gardens. No man wishes to live cheek by jowl with his neighbour. Seclusion is the rule. And in this lovely country, where forest and vegetation is in luxuriant profusion, the Nambútiri has chosen sites the most secluded, compatible with living in touch with the world. Some of the Nambútiri houses are immense structures, almost palatial, while hard by is the temple, an adjunct of the house. At the eastern side of the compound is the gate

entrance, sometimes almost a small house in itself, always kept scrupulously clean. In all the larger houses there is a room in this "gate house," as it is sometimes called, kept as a guest chamber for strangers. Properly speaking, it, as well as the house, should be thatched, but now it is very often tiled. The entrance to the compound is always over a step ladder. From the gateway to the house is a raised walk of earth or hardened mud. The yard in front of the house, *which faces the east*, is more or less square and flat; it is plastered with cowdung, and kept perfectly clean.

In Malabar, the house of the Zamorin and of many another grandee is called a *kôvilagam*, meaning, in a kind of way, palace; the abode of the Nambútiri is an "illam"; that of the Nambútirippád a "mana" or *manakkal*; and so there is a nice distinction between the habitations of the people of various castes down to the Cheruman who lives in a *chála*—a wretched kind of hut.

The Nambútiris' house is quadrangular, arranged thus—

	N			
	1	2	3	
W	8	9	4	E
	7	6	5	
	S			

Room 1 is for studying the Vêdas.

Do. 2 is for storing wealth.

Do. 3 do. grain.

Do. 4 is for performing ceremonies to the dead.

Do. 5 is for the kitchen.

Do. 6 is for household god.

Do. 7 is for performing sacrifices: sacrifices of no living-thing; offerings merely.

Do. 8 is for receiving guests.

Do. 9 is the court yard.

Usually there are outer verandahs and rooms upstairs. The building is, as a rule, erected with blocks, like large bricks, of laterite cemented in mud. Mortar is rarely used. Doorways and windows are sometimes well carved. To the north-east is the cow-pen (*gásâla*). To the south, the *tekkinisâla* or *pathiyapura* for receiving Brâhman guests. There may be a room at the north-east corner, an extension of room 3 called *pâchakasâla* for banquets. To the north-west, or may be at a little distance from the house, is the *ellupashâla* or grain-store. There is a tank in the north-east or south-west of the compound, in which, by the by, there should be a fig tree (*udumbara*) near the house.

The bilva (*Ægle Marmelos*) and the tulasi (*Ocimum sanctum*) are to be found in the compound. The bilva is of course specially sacred to Siva all over South India outside Malabar, in which district are observed none of the nice distinctions between Siva and Vishnu. In the house, or in the compound, is a place set apart for the serpent god, the figure being represented in carved granite. This is common in Malabar.

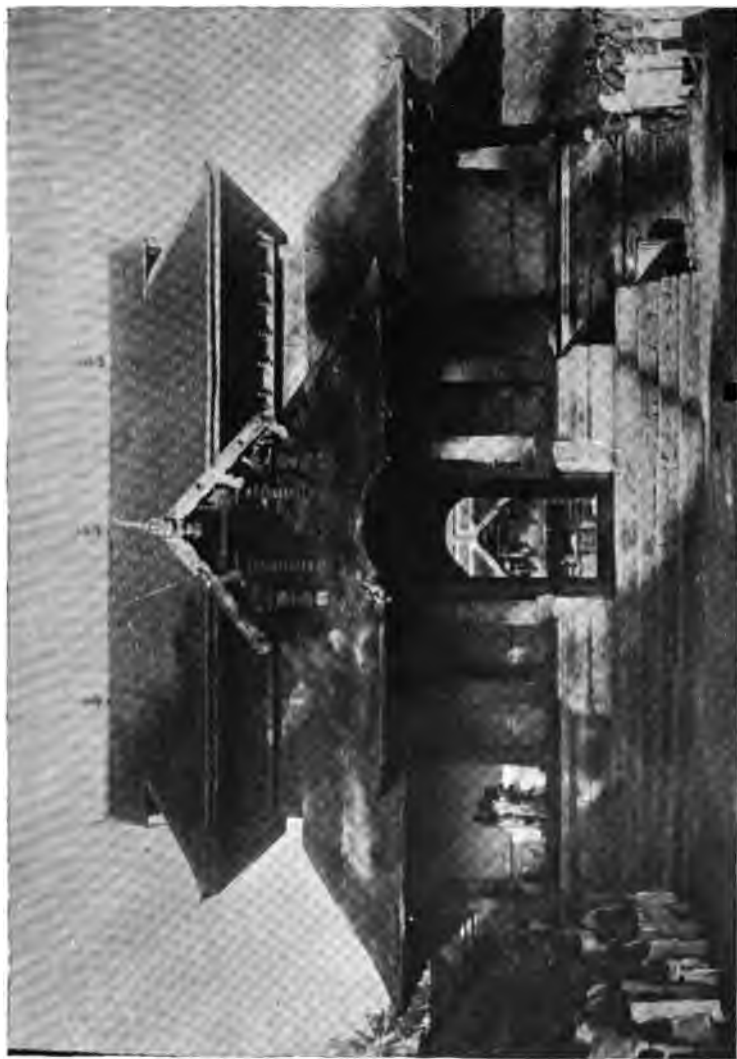
Construction of a house is commenced on an auspicious day fixed by the Vaidikar. Presents are given to other Brâhmans on the occasion. There is also a ceremony, the chief part in which is hōmam done on planks over the well before the house is occupied.

Furniture.—In every house there is at least one large bin ; there are a few cots. The chair is making its way in the Nambútiri houses, but the kúrmāsana, a round affair on three very stout legs, representing vaguely a tortoise, is the correct seat for the Nambútiri. There are always a few skins of the spotted deer on the floor, for sitting on.

Inheritance.—Before anything can be said of inheritance among the Nambútiris, something must be said of the Malabar Taravád and the two systems of inheritance which are there in vogue—the one, Makkattáyam, that by which property devolves in the male line ; the other, Marumakkattáyam, by which the devolution is through the females and their issue. The Taravád is the family community to the furthest relationship. It is the unit. Among those who follow the Marumakkattáyam law, as the Náyers, the husband and wife are not of the same Taravád. Neither joins the other's. The husband is the only member of his Taravád who is in any way connected with the Taravád to which belong his wife and children, and this connection ceases with his death, after which there is no bond whatever between the two Taraváds. There is no such thing as "death pollution" for a father's brothers. As the Taravád is perhaps of all arrangements for keeping property within the family the best, many Taraváds are very ancient indeed, and so some of the larger ones have been split up into Távazhis, or sub-Taraváds. Now the eldest male member of the family, of whatever branch of it, is called the Káranavan, in whom is vested complete control over the whole Taravád and Taravád property, not, however, for his own benefit but for that of the Taravád. Blindness, leprosy,

dumbness, any incurable disease preventing free social intercourse with his neighbours, and insanity prohibit altogether a man occupying the position of Kâranavan. Under the Marumakkattâyam law a man's sons are not in any way his heirs. Sisters, sisters' sons and daughters, their children—the women of the family and their children—inherit. It may be said that, as in the case of the Kâranavan, the Zamorin of Calicut is succeeded by the eldest male member of the family, of which there are three branches. The thrones of Cochin and Travancore are passed on in the same manner.

The Nambûtiris follow the Makkattâyam law; not however precisely as do the other peoples who do so. Nor is their system of inheritance the same as that of Brâhmans to the eastward (*i.e.*, of Southern India generally), with whom the family property may be divided up amongst the male members at the instance of any one of them. But here too (amongst the Nambûtiris) the eldest male member of the family is the Kâranavan or manager of it, having complete control over all the property. The younger members of the family are entitled to nothing beyond maintenance. The head of the family may be a female, provided there is none of the other sex. The eldest son alone marries. This is the rule. Should he die, the next marries; and so on. Women join the family of their husband, and to this belong too her children. Self-acquired property, that is, property acquired by any junior member of the family through his own effort outside the Taravâd, lapses to the Taravâd at his death, unless he has disposed of it in his life time. This is the custom, which our law has not yet infringed. The Taravâd is the unit, and, as the senior male succeeds to the management, it may happen that a man's sons do not succeed directly as his heirs. The arrangement is an excellent one for the material prosperity of the family, for there is no dispersion. Every circumstance tends towards aggrandizement, and the family is restricted to no more than a requisite number by one member only marrying and producing children. Impartibility is the fundamental principle. It is seldom that a Nambûtiri family comes to an end; and such a thing as a Nambûtiri's estate escheating to Government has been said on eminent authority never to have been known. I have heard of some few families becoming extinct in Walavanad (a taluk of Malabar), but some how or other the Nambûtiris managed to retain the family



ENTRANCE GATE TO THE TEMPLE OF SIVA, IN TALLI,
A SUBURB OF CALICUT.

property amongst themselves. There are very loath to permit property that has belonged to a Nambútiri to pass into the hands of others. It happens sometimes that there is no male member to produce progeny, and in such case there is done the Sarvasvadánam marriage, by which a man of another family is brought into the family and married to a daughter of it, who, after the manner of "the appointed daughter" of old Hindu Law, hands on the property through her children. The man so brought in is henceforth a member of the family he has joined, and as such he performs the Sráddha or ceremonies to the dead.

Exception to the general rule of inheritance is that seventeen families of Payyanúr in North Malabar follow the Marumakkattáyam system of inheritance. The other Nambútiris look askance at these, and neither marry nor dine with them. It is supposed they are not pure bred, having Kshatriya blood in their veins.

Food.—Liquor and flesh are strictly forbidden. The staple food is rice and curry. Uppéri is a curry of chopped vegetables fried in ghee, cocoanut or gingelly-oil, seasoned with sesamum (gingelly), salt, and jaggery. Avil is another; the jack fruit mixed with some vegetables. Sweets are eaten sometimes. Candied cakes of wheat or rice, cream, cheese, rice boiled in milk with sugar and spices, are delicacies. Pappadams are eaten at almost every meal. The Nambútiri must bathe and pray to the deity before partaking of any meal. An offering of rice is then made to the house-hold fire, some rice is thrown to the crows, and he sits down to eat.

The food is served on a plantain leaf or a bell-metal plate. It should be served by the wife; but, if a man has other Nambútiris dining with him, it is served by men, or by children. The sexes feed separately. Before he rises from his meal, his wife must touch the leaf or plate on which the food is served. The reason may lie in this. The remains of one's food is called *echchil*, and cannot be eaten by any one. Just before finishing his meal, the Nambútiri touches his plate with his left hand, and at the same time his wife touches it with her right (before he rises). Thus the food left on his plate is not *echchil*, and she may eat it. The Nambútiri householder is said to be allowed by the Sastras, which rule his life in every detail, to eat but one meal of rice a day—at midday. He *should* not, strictly speaking, eat rice in the evening, but he may do so without sinning

heinously, and usually does. Fruit only should be eaten in the evening. Women and children eat twice or thrice during the day. The widow, however, is supposed to lead the life of a Sanyási, and eats but once a day. The Nambútiri may eat food prepared by an east country Bráhmaṇ (Pattar) or by an Embrántiri. In fact, in the large illams where many people are fed every day, the cooks are generally Pattars in South Malabar. But the Nambútiri woman is more scrupulous, and will not touch food prepared by anyone of caste inferior to her own, as the Pattar is considered to be. Tea and coffee are objected to. The Sàs-tras do not permit their use. At the same time they do not prohibit them, and some Nambútiris drink both, but not openly. Persons observing vows are not allowed the oil bath, nor allowed to eat off bell-metal plates, nor to eat certain articles of food (see page 53). The gourd (churakkai in the vernacular), palmyra fruit and palmyra jaggery are taboo to the Nambútiri at all times. Water melons are eaten regularly during the month Karkkataka, to promote health and prolong life.

Livelihood.—The Census of 1891 gives the number of Nambútiri Bráhmaṇs in Malabar as 9,926, or nearly 4 of the total population of the province—2,652,565; and, according to Mr. Logan, the number of Nambútiri families is 1,017. The orthodox view of the Nambútiri is thus stated in an official document of Travancore. "His person is holy; his directions are commands; his movements are a procession; his meal is nectar; he is the holiest of human beings; he is the representative of God on earth." It is not to be expected that such a being will earn his livelihood. In another official document, the "Report of the Malabar Marriage Commission," it is said of the Nambútiri that "instead of taking the lead in every intellectual pursuit, as do the Bráhmaṇs in other parts, the Nambútiri has become enervated to such an extent that it would be difficult to find more than a few who have mastered the grammar and syntax of the Sanskrit, which is the chief vehicle of their sacred text. Most of them get no further than committing a number of slókas to memory. Not only do they refuse altogether to tread the path of knowledge opened up to them by a barbarian Government, but it is rare to find one of them who has studied the literature, such as it is, of his own vernacular." The commission was an outcome of the party of reform which confounds its ideas with progress—a very different thing; and the sentence quoted, which

echoes the views of this party, is á propos of the marital system of the Nambútiris, that part of which permits the union of the male with a Náyar female being pronounced pernicious in its effects on the Nambútiri community. It is added that the " proposed legislation " (a marriage law for Malabar) " undeniably threatens " the sacred privileges of the Nambútiris, who naturally oppose it. But the Nambútiri is by no means the degenerate being of these extracts. It will have been seen that physically he is the best in the land ; also that his position among the people is loftier than that of any other Bráhmans in Southern India. Perhaps it is for his special sacredness, which is correlative with high position, that the priest of the temple at Badaryásrama in Northern India, as also the priest of the Shaiva temple at Tiruvathiyur near Madras, is always a Nambútiri. He enters into none of the ordinary pursuits of livelihood, and for that very reason he is able to maintain his high position, and to exercise influence for good which is very considerable.* Every Nambútiri is, theoretically, a life-long student of the Védas. Some admit that religious study or exercise occupies a bare half hour in the day ; others devote to these a couple of hours or more. It is very doubtful whether the most competent Sanskrit scholar could really prove the depth of the Nambútiris' knowledge. The latter's exclusiveness would make this practically impossible. It is certain that every Nambútiri is under close study between 7 and 15, or for 8 years of his life, and nothing whatsoever is allowed to interfere with this. Should circumstances compel interruption of Védic study, the whole course is, I believe, recommenced and gone through *da capo*. A couple of years ago a Nambútiri boy was wanted to be examined informally in the matter of a dacoity in his father's illam ; but he had to be left alone, as, among other unpleasant consequences of being treated as a witness, he would have had to begin again his whole course of Védic study. They are probably more familiar with Sanskrit than any other class of Bráhmans, even though their scholarship may not be of a high order, and certainly none other is to the same extent governed by the letter of the law handed down in Sanskrit. Something has been said already on page 41 of the course of study. It begins in the 7th or 8th year with

* There is a solitary instance of a Nambútiri occupying the position of Secretary of the Cotton Mills at Calicut. This fact in no way contradicts what has been said.

the ceremony called Upanayanam, when the boy is invested with the sacred thread. "Death-pollution"—pollution arising through a death in the family, and which interferes with so many things—does not interfere with this course, during which the boy is a Brahmachâri, so long as he wears the skin. In his 15th or 16th year he undergoes the Samāvarttanam ceremony, in which he takes three steps in leather shoes. After this he should never again wear leather.

As said already, the Nambútiris are for the most part landholders or of that class. They are also temple priests; and, in their own way, to some extent cling to certain pursuits, as noted already, but this never involves going out into the world to earn a livelihood in the ordinary way. The rich have their own temples, on which they spend much money. All over Malabar there are to be seen Pattar Bráhmans, wandering here and there, fed free at the illams of the rich Nambútiris or at the various kôvilakams and temples; and they are always to be found at important ceremonial functions, marriages or the like, which they attend uninvited, and receive a small present—dakshina. But the Nambútiri never goes anywhere unless invited. From what I have seen, the presents to Bráhmans on these occasions are given usually on the following scale: 8 annas to each Nambútiri, 6 annas to each Embrántiri, 4 annas to each Pattar or foreign Bráhman. Not long ago a Nambútiri went to a marriage ceremony to receive his 8 annas, and in his absence his house was broken into, and his property worth Rs. 1,500, stolen. The Nambútiri is sometimes a money lender.

Domestic Animals.—The horse is a sacred animal, and cannot be kept. The cow, buffalo, dog and cat are the animals ordinarily kept in domestication; and there is sometimes a parrot taught to repeat Sanskrit ślókaś—so it is said, but I have never one of these educated birds!

Magic and Sorcery.—There are families in which the business of the magician and sorcerer is hereditary; chiefly in South Malabar and among the Chêla * Nambútiris, as

* Chêla—the cloth worn by Mappilas (Muhammadans). There are also Chêla Nâyars. Mr. Krishnan, the Malayalam Translator to Government, who has very kindly corrected the transliteration of the vernacular words and terms, tells me Chêla means the rite of circumcision. When the Mappilas make a convert, they at once make him tie his cloth à la Mappila, and one who had done this, but who had never been circumcised, would be Chêla. If the derivation of the two words is not the same, the coincidence shows how very careful we should be in accepting origins of words.

those are termed who, in the turbulent period of Tippu's invasion, were made Muhammadans by force. True, these returned almost at once to their own religion, but a stigma attaches to them, and they are not looked on as true Nambútiris. It is extremely difficult to obtain reliable information in magic or anything allied to it among any people, and most difficult of all among the Nambútiris. Magic books they possess, but they will neither produce them nor expound them. "Hara Mèkhala" is the name of one of these which is used most. It is said the sorcerer aims at—

- (1) Destruction (màrana).
- (2) Subjection of the will of another (vasikarana).
- (3) Exorcism (uchchâtana).
- (4) Stupefaction or inhibition (Not clear) (stambhana).
- (5) Separation of friends (vidvêshana).
- (6) Enticement as for love (môhana).

One of these at a time. The first may be carried out in this way. A figure representing the enemy to be destroyed is drawn on a small sheet of metal, gold by preference, and to it are added some mystic diagrams. It is then addressed, stating that bodily injury or death of the person shall take place at a certain time. This little sheet is wrapped up in another metal sheet or leaf (gold if possible), and buried in some place where the person to be injured or destroyed usually passes; and, should he pass over the place, it is supposed the charm will have effect at the time named. Instead of the little sheet of metal, there is sometimes buried a live frog or lizard, after sticking nails into its eyes and stomach. It is buried within a cocoanut shell, and the death of the person and the animal are supposed to happen simultaneously. There are said to be two Nambútiris,* of good family and well known in South Malabar, who are expert mantravâdis or dealers in magic, and who have complete control over Kuttichchâttan, an evil mischievous spirit, whose name is a household word in Malabar. Kuttichchâttan is the one who sets fire to houses, damages cattle, and teases interminably. Many who engage in magic are supposed to be able to use their troublesome demon as they please. It is said that the bones of a woman who has died immediately after childbirth, and the fur of a black cat, are things which are useful to the magician.

* Kallûr and Kâtumadam, the house names of these.

For carrying out (2), (5), (6) betel leaves such as are ordinarily used for chewing, or vegetables to be eaten, are somehow or other given to the victim, who unknowingly takes them into his mouth. Exorcism (3) may be treated in this way. Say a young woman is suffering from hysteria, and is supposed to be possessed by an evil spirit, or by the discontented spirit of some deceased ancestor. Nervousness is excited by beating drums, blowing conch shells, and otherwise making a horrible noise close to her; and, when the supreme moment is supposed to arrive, water is sprinkled over the wretched woman, who is required to throw rice repeatedly on certain diagrams on the ground, woven into which is a representation of the goddess Durga, the ruler of evil spirits. An effigy of the evil spirit is then buried in a copper vessel. Particulars of the rites by which (4) is accomplished are not obtainable. By means of certain "mantrams" Hanumán or Káli is propitiated, and with their aid, in some occult manner, the position of buried treasure may be found. Naturally, the secrets of this form of magic are not divulged.

Oaths, Covenants and Vows.—A Nambútiri is not permitted to swear or to take oath in any way. He often swears—who does not? But it is quite against his rules of life to do so. He may however declare so and so, holding the while his sacred thread between the forefinger and thumb of the right hand, by way of invoking the Gáyatri in token of his sincerity. And he may call on the earth mother to bear witness to his words, for she may, should he speak falsely, relieve herself of him. The name of the supreme being is not used in oath. Nambútiris have been known to take oath before a shrine in order to settle a point in a Civil Court, but it is not at all orthodox to do so.

Something has been said already of vows. Those desiring offspring perform the vow páyasahavanam. Sacrifice is made through fire (the medium) to the supreme being. The hōmam, really the same thing, is vowed to be done on a child's birthday to ensure his longevity. Here we may observe a contrast between the Nambútiri and the man of one of the inferior castes; for, while the vow of the Nambútiri has assumed to some extent the nature of propitiatory prayer, of which those low down really know nothing, the other gives nothing until he has had the full satisfaction of his vow. Mrityunjayam, another kind of hōmam, from mruthyan—mrityû, meaning death and jayam = that which conquers—is another kind of vow. Another is concerne

with cleansing from any specific sin. Liberal presents are made to Brāhmans when the vow is completed. In the vow called *rudrabhisheka* the God Shaiva is bathed in consecrated water. It is done in the way of averting misfortune. Monday is the day for it, as on Monday it is supposed that Shaiva amuses himself with Pārvati on Kailāsa, dancing; but it is not quite clear whether the conditions involve performance of the "puja" every Monday, observed as a fast. Apparently they do.

More of the nature of solemn affirmation is the formula of agreement between the parents of a bride and bridegroom, i.e., between the nearest relatives of these, just before the marriage ceremony. One places the fingers of his right hand over the fingers of the other's right hand, fingers across, thumb underneath, and says "I agree to perform this ceremony properly to the end," or words to that effect.

Customs.—The custom observed by Nambútiris, of letting the hair grow on the head, face and body untouched by the razor while a wife is *enceinte*, has been noticed already. A Nambútiri, having no male issue, also lets his hair grow in the same way for a year after the death of his wife; but, should there be male issue, on the eldest son devolves the duty of performing the ceremonies connected with the funeral of his mother, father too, and it is he who remains unshaven for a year. In such case the husband of the woman remains unshaven for 12 days, and this seems usual, or until after "the 41st day ceremony" (41st day after death). The period during which the hair is allowed to grow, whether for a death, for a fructiferous wife, or under vow, is called *diksha*. During *diksha*, as well as during the *Brahmachári* period, certain food is prohibited—the drumstick vegetable, milk, chillies, grain, dhall, pappadams, and other articles.

As a rule, men bathe thrice a day, women and children but once. Before concluding the bath, the cloth worn when the bath was begun, and for which another has been substituted, is wrung out in the water; and from this practice there is to be seen commonly a patch of thick indurated skin between the first finger and thumb of the right hand, where the cloth is held while wringing it dry. Almost every Nambútiri I examined in North Malabar was marked, so to speak, in this way.

The birthday is kept, but there are no special ceremonies observed. Reference has been made already to the thread,

and how that the Nambútiri may change his on any auspicious day, while the other Brāhmans of Southern India may make the change on but one day in the year, etc. But the Nambútiris differ from the others in respect of many customs, and these will be noticed. They observe 64 anáchārams, or *irregular customs*, said to have been promulgated by the great reformer Sankaráchārya (about 1100 A.D.). These are as follows :—

- (1) You must not clean your teeth with sticks.
- (2) You must not bathe with cloths worn on your person.
- (3) You must not rub your body with the cloths worn on your person.
- (4) You must not bathe before sunrise.
- (5) You must not cook your food before you bathe.
- (6) Avoid the water kept aside during the night.
- (7) You must not have one particular object in view while you bathe.
- (8) The remainder of water taken for one purpose must not be made use of for another ceremony.
- (9) You must bathe if you touch another, *i.e.*, a Súdra.
- (10) You must bathe if you happen to be near another, *i.e.*, a Chandála.
- (11) You must bathe if you touch polluted wells or tanks.
- (12) You must not tread over a place that has been cleaned with a broom, unless it is sprinkled with water.
- (13) A particular mode of marking the forehead with ashes (otherwise described : put three horizontal lines on the forehead with pure burnt cow dung).
- (14) You must repeat charms yourself (must not allow some one else to do it).
- (15) You must avoid cold rice, etc. (food cooked the previous day).
- (16) You must avoid leavings of meals by children (or do not eat food which has been left by children).
- (17) You must not eat any thing that has been offered to Shaiva.
- (18) You must not serve out food with your hands (must not touch the food with the hand when serving it).
- (19) You must not make use of the ghee of buffalo-cows for burnt offerings.
- (20) You must not use buffalo milk or ghee for funeral offerings.
- (21) A particular mode of taking food (not to put too much in the mouth, because none must be taken back).
- (22) You must not chew betel while you are polluted.
- (23) You must observe the conclusion of the Brahmachári period.

(24) You must give presents to your guru or preceptor.
(The Brahmachári must.)

(25) You must not repeat the Vêdas on the road.

(26) You must not sell women (receive money for girls given in marriage).

(27) You must not fast in order to obtain fulfilment of your desires.

(28) Bathing is all that a woman should observe if she touches another in her menses. (A woman touching another who is in this state should, it is said, purify herself by bathing. A man should change his thread and undergo sacred ablution).

(29) Brâhmans should not spin cotton.

(30) Brâhmans should not wash cloths for themselves (should not wash their own cloths).

(31) Kshatriyas should avoid worshipping the Lingam.

(32) Brâhmans should not accept funeral gifts from Sûdras (anniversary gifts too).

(33) Perform the anniversary ceremony of your father (father's father, mother's father, and both grandmothers).

(34) Anniversary ceremonies should be performed on the day of the new moon (for the gratification of the spirits of the deceased).

(35) The funeral ceremony should be performed at the end of the year, counting from the day of death.

(36) The ceremony to be performed till the end of the year after death (The diksha : letting the hair grow, apparently).

(37) Srâddhas should be performed with regard to the stars.

(38) The funeral ceremony should not be performed until after the pollution caused by childbirth has been removed.

(39) A particular mode of performing srâddha by an adopted son (who should do the ceremony for his adopted parents as well as for his natural parents).

(40) The corpse of a man should be burnt in his own compound (on his own jenmam land).

(41) Sanyâsis should not look at (see) women.

(42) Sanyâsis should renounce all worldly pleasures.

(43) Shraddha should not be performed for deceased san-yâsis.

(44) Brâhman women must not look at any other persons besides their own husbands (should not be seen by men out of the family).

(45) Brâhman women must not go out unless accompanied by women servants.

(46) Should wear only white clothing.

(47) Noses should not be pierced. (Amongst South Indian Brâhmans outside Malabar, the noses of women are always bored).

(48) Brāhman̄s should be put out of their caste if they drink any liquor.

(49) Brāhman̄s should forfeit their caste if they have intercourse with other Brāhman women besides their wives.

(50) The consecration of evil spirits should be avoided. (Otherwise said to be that worship to ancestors should not be done in temples.)

(51) Śūdras and others are not to touch an idol.

(52) Anything offered to one god should not be offered to another.

(53) Marriage, etc., should not be done without a burnt offering (hómam).

(54) Brāhman̄s should not give blessings to each other.

(55) They should not bow down to another (should not salute each other).

(56) Cows should not be killed in sacrifice.

(57) Do not cause distraction, some by observing the religious rites of Siva and others those of Vishnu.

(58) Brāhman̄s should wear only one sacred thread.

(59) The eldest son only is entitled to marriage.

(60) Ceremony in honour of a deceased ancestor should be performed with boiled rice.

(61) Kshatriyas and those of other castes should perform funeral ceremonies to their uncles (deceased).

(62) The right of inheritance among Kshatriyas, etc., goes towards nephews.

(63) Widows should lead the lives of sanyásis.

(64) Sati should be avoided.

The marks on the forehead are done with the three middle fingers of both hands across the forehead. 23 is the Samāvarttanam ceremony mentioned on page 50. It should be done before consorting with the Nāyar women. 31 and 62, and perhaps 61 refer to the Nāyars. 35 (sapindi) the ceremony through which the spirit of the deceased joins those of the ancestors, is to be done a year after death, while non-Malabar Brāhman̄s perform this ceremony on the twelfth day after death. 28—Women in their periods are not required to keep aloof, as among non-Malabar Brāhman̄s. 39—Among non-Malabar Brāhman̄s an adopted son has nothing to do with the ceremonies for his natural father, from whose family he has become entirely disconnected. The adopted son among Nambútiri Brāhman̄s does the ceremonies for his father, as well as for his adopted father. 37—According to the astronomical, not the lunar, year. 55—Among non-Malabar Brāhman̄s juniors receive benediction from seniors. The Nambútiris do not allow this.

64 includes direction to widows not to shave the head, as is the custom among non-Malabar Brāhmans.

It is said that there are 64 Āchāras or regular directions of custom for all Brāhmans, and that 4 of these Āchāras together with 60 other directions emanating from Sankarāchārya, according to some, Parasurāma, make up the 64 Anāchāras or irregular directions of custom which guide the Nambútiris. I cannot say which 4 are common to both Nambútiris and non-Malabar Brāhmans, but at any rate 60 of those enumerated are observed by Nambútiris and by no other Brāhmans.

In affairs of the world, time is reckoned by the ordinary Malabar kollam or solar year, the era beginning from the date of the departure of the last Perumál, a sovereign of the western coast of India, to Arabia in 825 A.D. The current Malabar (kollam) year is therefore 1073. The religion of Muhammad was brought to Malabar by Arab traders from across the sea. Of this, more anon, when we come to speak of the Mappillas, the fanatical Muhammadans of Malabar. And it will suffice to say here that the Perumál, adopting the new religion of "the fourth véda" as it is called by the Mappillas, divided up his kingdom and set sail for Arabia in 825 A.D. The months of the kollam year are—Mésa (Métam), Vrishabha (Itavam), Mithuna, Karkataka, Sihma (chingga), Kanya (Kanni), Tula, Vrischika, Dhanu, Makara, Kumbha, Mīna.

But in affairs of religion time is reckoned by the Sálivāhana Saka, a lunar year, the months of which are—Chaitra (March-April)—Vaisákha, Jêshtha, Āshādha, Srāvana, Bhādrapata, Āsvayuja, Kārtika, Margasirsha, Paushya, Māgha Phalgunā.

Every three years or thereabouts there is added another month, called Adhika.

Some of the festivals kept by the Nambútiris are as follows:—

Sivarātri.—Worship of Shaiva on the last day of Māgha. Fast and vigil at night: pūja also.

Upākarma.—The day for putting on a new sacred thread—the regular day (as noted already, the thread can be changed at other times also)—after having cleansed away the sins of the year through the Prāyaschittam, in which ceremony are partaken the five sacred products of the cow: milk, curds, ghee, urine, dung. It is done on the 15th of Srāvana.

Nāgara panchimi.—The serpent god is worshipped and bathed in milk. On the 5th of Srāvana. This festival is common in Southern India. I have observed a kindred ceremonial in the Bellary district.

Gókulāshtami.—Fast and vigil at night to celebrate the birth of Krishna. Púja at night. On the eighth day of the latter half of the month Srāvana.

Navarātri.—The first nine days of Asvayuja are devoted to this festival in honour of Durgá.

Dipāvali.—Observed more particularly in north Malabar on the anniversary of the day on which Krishna slew the Rákshasa Naraka. Every one takes an oil bath. On the last day of Asvayuja.

Ashtkālam.—The pitris (ancestors) of the family propitiated by offerings of Pinda, and Tarpana—libations of water. On the new moon day of Dhanu.

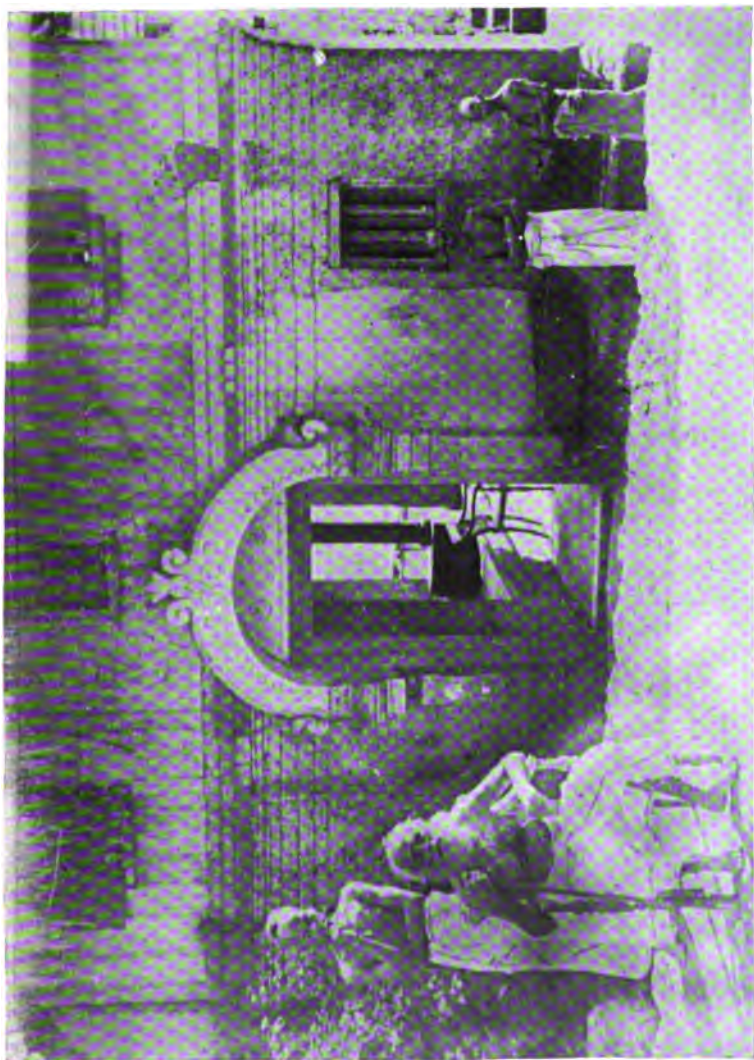
Vináyaka Chaturthi.—The elephant-headed god of learning (son of Shiva and Gauri) is worshipped. At the end of the ceremony the idol is dropped into a well. On the fourth day of Bhádrapata.

Púram.—The god of love, represented by a clay image, is propitiated by unmarried girls with offerings of flowers seven days successively. The image is at the end given to a Brāhman together with some money (fanams). He drops it into a well. The flowers which have been used to decorate the image are placed by the girls at the foot of a jack tree. Done in Mina. Contrary to the custom of other Brāhmans, Nambútiri girls are under no disgrace should they attain puberty while unmarried.

Onam.—The great festival of Malabar and kept by every one high and low with rejoicing. It is the time of general good will, of games peculiar to the festival, and of distribution of new, *yellow* cloths to relations and dependents. Something more will be said of it when we come to the Nāyars, whose special festival it seems to be. It is supposed to commemorate the descent of Maha Bali or Mábali to see his people happy. Held in the beginning of the Kollam year. Generally in the first few days of September or the very end of August. It seems really to be a sort of harvest festival.

Tiruvádíra.—Fast and vigil in honour of Shaiva. Observed by women only. In the month of Dhanu.

Vishu.—The solar new year's day (in April). A very important festival in Malabar. It is the occasion for gifts, chiefly to superiors. The first thing seen by a Nambútiri



ENTRANCE TO THE NARASS MANNA, RESIDENCE OF
THE NARASS NAMBUDDRI.

on Vishu day should be something auspicious. His fate during the year depends on whether the first object seen is auspicious or the reverse ; a belief which has its well known counterpart all over Europe.

(*Sakuna*) *Omens*.—The Nambútiri's business which he has in hand will be concluded to his satisfaction, should he on starting out hear or see music (vocal or instrumental), a harlot, a dancing girl, a virgin, a litter, an elephant, a horse, a bull or cow tethered, curds, raw rice of a reddish colour, sugarcane, a water pot, flowers, fruit, honey, two Bráhmans.

The following are bad omens, which, if seen by the householder the first thing in the morning, mean trouble of some kind for the rest of the day—a crow seen on the left hand, a kite on the right, a snake, a cat, jackal, a hare, an empty vessel, a smoky fire, a bundle of sticks, a widow, a man with one eye, a man with a big nose.

A Nambútiri, seeing any of these things on setting out on a journey, will turn back. Should he, however, at once see a lizard on the eastern wall of a house, he may proceed.

To sneeze once is a good omen for the day ; to sneeze twice is a bad one.

An evil spirit may enter the mouth while one is yawning, so, to avert such a catastrophe, the fingers are snapped, and kept snapping until the yawn is over, or the hand is held in front of the mouth. But this idea, and the custom of snapping the fingers while yawning, are by no means peculiar to the Nambútiris, as is well known.

Pollution through proximity of others.—A Nāyar should not come nearer than 6 paces to a Nambútiri ; a man of the barber caste no nearer than 12 paces ; a carpenter, a goldsmith or a blacksmith no nearer than 24 ; and so on—a Tiyan 36, a Malayan 64, and a Polayan, the lowest race in north Malabar, 96. Malabar is indeed the most conservative part of Southern India. The man of high caste shouts occasionally as he goes along, so that the low caste man may go off the road and allow him to pass unpolluted. And those of the lowest castes, Polayans and others, shout as they go, to give notice of the proximity of their pollution-bearing presence, and, learning the command of the man of high caste, move away from the road. It is common to see people of the inferior races travelling parallel to the road, but not daring to go along it. They do not want to. It is not because they are forced off the road. Custom clings to them as to

the Nāyar or to the Nambútiri. But even this is undergoing modification. The subject will be referred to again when we come to the Nāyars and Tiyans.

It is said that among the Nambútiris it is a custom to make an offering to the deity, technically a sacrifice, consisting of rice pudding with jaggery and cocoanut milk, with the hómam, for the purpose of making the barren woman bear offspring. Páyasahavanam (páyasa, the pudding) is the name of the ceremony. Also that the Putrakáméshti Yágam, in which a cow and its calf are presented to a Brāhman, is done with the same object. And there is performed a ceremony to avert death. But all these require very careful scrutiny, such as it is scarcely possible to give them where the Nambútiris are concerned, for it is rare to find actual performance for the good to come. But there are instances, and record of such is valuable as forms of a higher form of prayer, distinguishable and far apart from the sacrificial offering of the bloody sacrifice given to a merciless deity or spirit to entice it away from a sick person, such as we see among the lower races of Southern India.

The Nambútiris look on voyage across the sea with horror. Though non-Malabar Brāhman, as we may call those Brāhmans of Southern India,* who are not Nambútiris have visited the shores of England, no Nambútiri has ever yet done so.

Marriage.—Three chief rules are observed. The parties of the marriage must not be of the same gôtra; they must not be related to each other through father or mother; the bridegroom must be the eldest son of his family. Some Nambútiris have, however, assured me that marriage may be between *any* two of different gôtras, and it is very likely the name only is considered. It has been noticed already that the last is not absolute; it is, however, almost invariable.†

* Of Northern and Western India also. But here we are concerned only with the south.

† As is well known, it is the general custom amongst all the Dravidian peoples, including the Brahmins outside Malabar, for a brother's daughter to marry a sister's son or *vice versa*; this is recognized as the proper marriage. Curiously, it has been found in Fiji lately, from statistics, that marriages of this kind are of all the best, producing the sturdiest children, the most prolific. Perhaps the next census in India will tell us whether observation of this principle gives the best physical results. The opportunity for determining it among the peoples of Southern India will be a splendid one, and should not be lost. Is it, after all, a result which has been reached without knowing why, which has worked itself out in the natural process? If so it has a physical basis, none the less sound because unperceived.

It is said that there are seven original gôtras, or septs called after the seven sages—Kamsha, Káshyapa, Bharadvája, Vatsya, Kaundinya, Atri, Tatri; and that the other gôtras given on page 77 have grown out of these. Relationship is said by some to cease after the fourth generation, but this is disputed. The rule permitting the eldest son only to marry has doubtless arisen out of desire to maintain property intact; the variation of it in these days comes perhaps out of necessity to provide for the superfluous girls. Perhaps the demand for a heavy dowry with a bride, a natural enough consequence when the girls are much in the majority, influences maintenance of the rule. The bride's dowry is always heavy. The wife joins her husband's gôtra, forsaking her own altogether. Women may remain unmarried without prejudice. Needless to say, this has the reverse of favour with Brāhmans outside Malabar. But the Nambútiri girl, or woman, who has not been married, is not allowed to disappear altogether from the world without at least the semblance of marriage, for at her death there is performed on her person some part of the marriage ceremony. The táli is tied. Of more than this I am not sure. The same custom obtains also amongst the Todas. A dead Toda girl is not allowed to go to her last rest unmarried.

Infant marriage, the rule with other Brāhmans, is unknown among the Nambútiris. Marriage is always done after puberty. To the eastward, the Brāhmans (non-Malabar Brāhmans) *always* do their marriages before puberty. Marriage of widows is prohibited absolutely. When a girl is 10, or a little more, her father thinks of finding a husband for her. Property alone is the real thing to be considered. There is no such thing as frittering away a fortune in love. Every detail bearing on personal advantage, the advantage to the family through the alliance, is thought out carefully. Amongst the Malayalis generally the youth with University degrees has command of the marriage market, but to the Nambútiri these are of no account. He is more old-fashioned, and looks on a matrimonial affair as one which must bring obvious advantage to his family.

When he has fixed on a likely young man, he gets his horoscope, and confers with a Vádhyáyar on the suitability or agreement of the young man's horoscope with that of his daughter. Should the decision of the Vádhyáyar be favourable, the young man's father is invited to the house, and the

two fathers together with some friends talk the matter over, an auspicious day being fixed for the purpose. In presence of all, the Vádhyáyar announces the agreement of the horoscopes of the pair whose marriage is in prospect. The dowry of the *bride* is then fixed. Probably many days have been occupied already before the fathers can agree as to settlement of the dowry. When this has been done, the Vádhyáyar consults the heavenly bodies, and appoints the day on which the marriage ceremonies should be begun. There is then a sort of feast for all present. A Nambútiri would be in very bad circumstances if he did not give at least Rs. 1,000 with his daughter. He should give much more, and does if he possibly can.

The ceremonies connected with marriage are supposed to occupy a year, but they are practically completed within ten days. They open with a party leaving the bride's illam to invite the bridegroom and his party to the wedding. At the house of the bridegroom the Vádhyáyar is given about 8 fanams by those of both parties. (In all ceremonies, and indeed in all arrangements connected with labour in rural Malabar, it is the rule to reckon in the old and not in the existing currency.) The return to the bride's illam is a sort of noisy procession—the bridegroom with his friends, Nayar women under their big cadjan umbrellas, and a number of Nayars, some of them indulging in sword play (with sword and shield) as they go; and there are Nambútiris versed in the sastras, but I am not sure whether they sing. The bridegroom, the chief figure in the crowd, puts on an air of majesty, a string, the (usual) kankanam tied round his right wrist to protect him from evil spirits, carrying a bamboo with 16 joints, symbolic of the married state, a mirror, for good luck, an arrow to guard his bride against evil spirits, four cloths and a tâli. At the gate of the bridegroom's illam the procession is met by some Nayar women *dressed as Nambútiri women*, representing the (Nambútiri) women of the bride's illam, who, unable to come out and welcome the bridegroom, do so thus by proxy. These women wave a light in front of his face and offer him the ashtamangalyam, a plate on which are plantains, betel leaves, a cocoanut and some other things. The processional party then enters the courtyard. On this day (but *when* precisely I cannot say) there is prepared in the courtyard of the bride's Illam the sacred fire, Āpāsana agni. A square pit is dug, dimensions of which cannot be divulged. Fire is made with a

piece of the wood of the jack tree and a piece of the wood of the peepul. This fire is rendered sacred, metamorphosed into the Âupâsana agni, by some mystic rites. It is kept burning throughout the marriage, and it is preserved until the death of the future husband and wife in one of two ways—

- (1) Keeping burning perpetually a lamp lighted at this fire; or
- (2) *Heating* in this fire a piece of wood (called in the vernacular plâsa, sanskrit palâsa), or darbha grass.
- (3) The piece of wood or grass is put away, and, when the Âupâsana agni is to be revived, the wood or grass is lighted in a fire of jack and peepul wood while repeating certain mantrams.

The body of the bridegroom (and, I think, the body of the bride should she die before he does) should be burnt in the Âupâsana agni prepared for the first time on the first day of the wedding, and preserved as described. The Âupâsana agni is as a witness to the marriage.

In the courtyard there is done first the Nandimukham ceremony for propitiation of the minor deities and the pitris (spirits of deceased ancestors). A jar or water pot containing sacred or consecrated water, a piece of sandal-wood, a piece of gold, flowers, raw rice; some fruits, are the apparent object of adoration. It is called kalas—the kalasam of the Telugu or Tamil country; a common symbol of the deity. According to Monier Williams (Brâhmanism and Hinduism, page 413), it should be worshipped thus: “In the mouth of the water-vessel abideth Vishnu, in its neck is Rudra, in its lower part is Brahma, while the whole company of the mothers are congregated in its middle part. O Ganges, Yamuna, Gôdâvari, Saraswati, Narmada, Sindhu and Kâveri be present in this water.” A part of the afore-said ceremony Nandimukham is called the Punyâhavachana, for which the bridegroom repeats certain hymns after the Vâdhyâyar, and is sprinkled with water from the kalas.

While all this is being done in the courtyard, the very same ceremony is done within the house in presence of the bride, the *bride's father* doing inside the house what the bridegroom is doing outside; and, at the conclusion, the tâli is tied on the bride's neck—by whom I know not. Then two of the cloths brought by the bridegroom are sent inside, where they are touched by the bride. After she has touched

them, they are again brought out, and the bridegroom puts them on. He touches the other two cloths, which are taken inside and worn by the bride. A feast, the *Ayaniûm*, is the next item. The bride and bridegroom eat their share of it in separate rooms. Then comes the marriage proper. The bride's father washes the bridegroom's feet while a *Nayar* woman waves a light (*Āyiram-tiri*, 'thousand lights') before his face, and conducts him to the hall prepared for the wedding. In this is a *mantapam*, a raised sort of seat having four pillars and a covering roof. The pillars of the *mantapam* and the ceiling of the hall are covered with red cloth, red being an auspicious colour; and there are festoons of mango leaves for purposes of decoration. To one side of the *mantapam* is a screen, behind which stand the *Nambútiri* women of the household looking at the scene in the hall through holes. The bride and bridegroom are led to the *mantapam*; he first, she after, screened from the general gaze by a big *cadjan* umbrella. Still hiding herself, she hands him a garland, and in doing this she should not touch his hand. He puts on the garland. Védic hymns are chanted and the pair are brought face to face for the first time. This is the *mukhadarsanam*—seeing the face. He leads her three times round the fire and the water jar, moving round to the right, repeating a *mantram* rendered thus by Monier Williams (*Brāhmanism and Hinduism*, page 363): "I am male, thou art female. Come let us marry, let us possess offspring, united in affection, illustrious, well disposed towards each other, let us live for a hundred years. Each time he leads her round he causes her to ascend a millstone, saying (Monier Williams, rendering again) "Ascend thou this stone, and be thou firm as this rock." Then, in a moment supposed to be auspicious, water is poured on the hands of the bridegroom, signifying that the girl and her dowry have been handed over to him. The *Nambútiri* women behind the screen and the *Nayar* women in the hall utter a shrill cry, "like that of the *Vaikura*."

The fire here mentioned is probably taken from the original *Aupāsana agni*. Holding the bride by the hand, the bridegroom leads her seven steps—one for force, two for strength, three for wealth, four for well-being, five for offspring, six for the seasons, seven as a friend—tells her to be devoted to him, and to bear him many sons who may live to a good age. This is the "*Saptapadi*." A *hómam* is then performed. It is said that the fire used on this occasion

must be preserved until the death of the bridegroom. It must be used in cremation of his body: evidently the *Aupāsana agni*. A feast is the next thing, and, when it is over, the bride's father takes her on his lap, asks his son-in-law to treat her well, and formally hands her over to him. The bridegroom says he will, and takes his wife by the hand. There is then a procession to the bridegroom's *illam*: the bride carried on a litter, he walking and carrying the sacrificial fire, the *aupāsana agni*. So ends the first day.

But it seems that the parties to the marriage live apart for the next three days, during which the bride is initiated in household duties. The only daily ceremony is the *hómam*, which is done by the pair after bathing and before taking food. On the fourth day of the marriage there is a little ceremony in which the bride plants a jasmine cutting, by way of symbolizing help to her husband in performance of his religious duties. At night the couple are led to the bridal chamber by the *Vádhyáyar*. The bed is but a grass mat or a common country blanket covered with a white sheet, a little ridge of rice and paddy, signifying plenty, around the edges. The *Vádhyáyar* withdraws and the bridegroom shuts the door. The *Vádhyáyar* outside, and the bridegroom inside following him, repeat appropriate passages from the sacred writings.* The marriage ceremony, though practically completed, is still carried on for some days. On the fifth day they anoint each other with oil, and the bridegroom combs the bride's hair. Then, before bathing, they catch fish, about the size of a minnow, called in Malayalam ("mánatt kanni" = "eyes looking up,") found in pools and common in Southern India in a tub of water, using a cloth as a net. While doing this a *Brahmachâri* asks the bridegroom "Did you see a cow and a son?" The answer given is "Yes, they are here" pointing to the fishes caught in the cloth. This is said to be suggestive for progeny; fishes being emblematic of fertility. The *hómam* is then done, and at night the bridegroom adorns his bride with flowers, and makes her look into a mirror while he recites mantrams supposed to suit the occasion. From the sixth to the ninth day there is practically nothing in the way of ceremonial, and, as that

* I am informed the Nambútiris take objection to Mr. Logan saying in his "Manual of the Malabar District" that the *Vadhyayar* shuts the door and looks it,

proper to the tenth day is invariably done on the sixth day, the ceremony may be said to conclude on the night of the sixth day of the wedding. A few Bráhmans are fed to please the pitris, and the couple go to a jack tree under which some rice, curds and ghee are placed on some kusha grass, and an offering is made of flowers and sandalwood, or sandalwood powder. The kankanam, the bamboo staff, the arrow, and the mirror are given to the Vádhyáyar, and the wedding is over. Sir W. W. Hunter in his 'Orissa' (Vol. I, page 254) speaks of the Nambútiris as "a despised class," they having had fishermen ancestors. The little ceremony of catching fish, which is a very important part of the wedding, may look like preservation in meaningless ceremonial of something real in the past, but it only shows that in an endeavour to interpret ceremonial we must be far from hasty. They are, it seems, the truest Áryans (if we may use the term) in Southern India, and hold a position for sanctity and respect far above that of all other Bráhmans. There is, I should say, nothing of the Áryan in the Malabar fisherman.*

It will have been seen already that the Nambútiris are not strict monogamists. Several assured me that a man may have four wives, and that the same ceremony, as described, must be done for wedding all four wives. Moreover, there is no restriction to the number of Náyar women with whom a man may be associated.

So much for the ordinary marriage. The other form of it, the Sarvasvadánam, by which a son is brought into a family and married to a daughter, has been noticed on page 47.

There is no divorce. Putting a woman out of caste for infidelity is not exactly uncommon, and, so far as her marriage is concerned, it amounts to the same thing.

Hamilton, writing of his time in Malabar, the end of the 17th and beginning of the 18th century, says :

"When the Zamorin marries, he must not cohabit with his bride till the Nambútiri or chief priest has enjoyed her, and, if he pleases, may have three nights of her company, because the first fruits of her nuptials must be an holy oblation to the God he worships : and some of the Nobles

* Mr. Venkatrao tells me there is sastraic proof that in the days of old the Bráhmans married women of inferior castes, and mentions the expressions used by Bráhmans when commencing a sacrifice, such as "whatsoever caste we may be, we celebrate this sacrifice."

are so complaisant as to allow the clergy the same tribute ; but the common people cannot have that compliment paid to them, but are forced to supply the priest's place themselves."

It is axiomatic in Malabar throughout the Náyers that a woman can never marry, or have anything to do with a man who is at all inferior in caste to herself. He may be of her own division (or sept, *i.e.*, equal to her, or he may be of a higher one : never of an inferior one. Thus the tendency is ever upward, and as this is the rule, of which no variation is ever tolerated, in a country where the principles of natural selection are less impeded by custom than probably anywhere else in the world, it is not surprising that the resultant race is a fine one. In quite a large number of well-to-do families, Náyers and that ilk, Nambútiri consorts are always procured if possible for the women, while in some, as for instance in the family of the Zamorin and in many others within my knowledge, the women are given to Nambútiris and to no others. Thus, as we may say theoretically, such families must be of pure Nambútiri blood, since the fathers of all the children have been for very many generations Nambútiris. This kind of marriage is to the Nambútiri of course very often a farce, as when he goes through the ceremony of marriage with one of the princesses of the Cochin Royal family (and there are, I believe, over 50 of them, for the family is a wide one) he is well paid for his share in the ceremony, and leaves her at the end of it. He may or may not see her again ; but it is a fact that, as a rule, he never sees her again. In this connection let us note here that, while the stature of the Nambútiri is but 163·1, that of the Náyar is from 163·1 to 167·0.

Birth Ceremonies before and after. That which may be called the first of these is the *Garbhadhanam* ceremony, and it is done soon after marriage. There is a *hómam* (sacrifice through fire), and the husband puts the juice of some panic grass into his wife's nostrils.

Garbharakshana secures the unborn child from dangers. The ceremony is not considered important, and is not always done.

Pumsatana, done in the third month of pregnancy for the purpose of securing male offspring. The desire of the Hindu for male rather than female children need not be commented on. "Putra," a son, is the one who saves from

the hell—*put*. It is by every religious text made clear that it is the duty of every man to produce a son. The Nambútiri may have practically any number of wives in succession until he begets a son by one of them ; and he may adopt a son through the Sarvasvadânam form of marriage. On the day devoted to the *Pumsavana* ceremony, the wife fasts until she is fed by her husband with one grain of barley and two beans, symbolizing the generative organs of the male. It is said to be the *linga*.

Simantonayana is the name of the next ceremony performed for the benefit of the child yet unborn. It is done between the sixth and eighth month of pregnancy, and consists in a burnt sacrifice to the deity, and the husband parting the hair on his wife's head with a porcupine quill, or with three blades of the sacred kusha grass, repeating the while Vedic verses.

Jâtakarma is the name of the birth ceremony, and is done by the father of the child. Honey and ghee (clarified butter) are introduced into the mouth of the infant with a golden spoon or rod to symbolize good fortune. Then the ears and shoulders are touched with the spoon or rod, while Vedic texts are spoken.

Mêdhâjananam, rarely done, is for inducing intelligence.

Âyusha, for prolonging life, is the next in order. The father gives the child a secret name, having an even number of syllables if male, and an uneven number if female, which is never revealed to any one except the mother.

Nâmakarana is the ceremony during which the child is named, and is said to be done on the tenth day after birth. It will have been seen, however, that the boy Akkiranman was named in the sixth month after birth. The naming a child is an important religious act supposed to carry consequences throughout life. The parents assisted by a Vâdhyân make a burnt sacrifice to the Deity.

Annaprâsana is the name of the ceremony when food other than that from nature's fount is first given. It is done in the sixth month after birth. The father carries the child to a group of friends and relations. The Vâdhyân or purôhit is present and repeats Vêdic texts, while the father places a little rice and butter in the child's mouth.

Chaula is the ceremony when the hair is cut for the first time in the Nambútiri fashion.

Karna Védha is the occasion when the ears are bored. The ears of the boy Akkiráman were bored in the eighth year, as we have seen already.

On the Vidyádasami day, 10th of Ásvayuja, when a male child is five years old, the father goes through the form of initiating him into the mysteries of the alphabet.

The *Upanayana* ceremony, when the boy is invested with the sacred thread, is done in the seventh or eighth year as said already.

Prolificness and longevity.—Women are said to bear children between the ages of 15 and 45, but instances of their bearing children when 14 or even 13 are not unknown, though very uncommon. The average number of children in 10 families, counted by Mr. Vádhyár, is 3·6 for each family, while in 6 families which came under my notice the average was 2·3. Families are not large, and perhaps 3 would be the average number of children. It seems certain that in prolificness the Nambútiris are far behind the Mappilas, a mixed race. In 92 families of Mappilas observed by me the average number of children was 5·8, while in 10 of these the average was nearly 9. There is a Mappila now living in Malabar who has 33 children by 4 wives. I have come across several who have had as many as 12 children by one wife. This degree of prolificness far exceeds that to be found in the Nambútiris, amongst whom the largest number of children observed by me in one family was 7.

The Naras Nambútiri, whose picture is given, was (as stated already) 79 when I photographed him; a hale and ordinarily robust man. There are quoted to me a case of a man living to the age of 98, and several cases of men over 80. The average length of life among the Nambútiris is perhaps greater than that of any other people in Malabar. Their lives are relatively free from care, their bodies are well nourished and kept in comfort, so it is not surprising that debility accompanying age is said to be the usual cause of death. It seems safe to say they are a long-lived people.

Death Ceremonies.—These are commenced shortly before death actually takes place. When death is believed to be unmistakably near, some verses from the Taittírya Upanishad are spoken in the dying man's ears. A bed of kusha grass, called darbhāsana, is prepared in the verandah or some convenient place outside the foundations of the

house, and the dying man is placed on it. When life is extinct the body is washed, dressed in a new white cloth, and placed on the bier made of bamboos covered with new white cloth. The bier is then carried on the shoulders by four of the nearest relatives—brothers or sons if there are such, and, if not, by distant relatives or friends—to the place of cremation within the compound of the illam, and laid on the pyre, a pile of firewood. I am not aware whether any special kinds of wood are required to be used for the purpose of cremating the dead, but think not, beyond the fact that it must contain some sandal wood. The pyre may be prepared by anybody: not necessarily by Nambútiris. Properly speaking, that is according to the sacred texts which govern almost every act of the Nambútiris' life, relatives and friends, male and female, should accompany the bier to the place of cremation, but as a rule women do not join the little procession. The bier is laid on the pyre, and the corpse is uncovered; rice is scattered over the face by the blood-relations present, and small pieces of gold are thrust into the nine openings of the body while mantras are recited by the Vádhyáyar or priest. The gold is said to be used on this occasion as part of the offering in the yâgam, *the last sacrifice* as the burning of the body is called, and not in any way to assist the deceased in his journey to "the undiscovered country." I am not sure of the precise order of the ceremonial, but, soon after the bier is laid on the funeral pyre, a *homam* is made; fire taken from it is placed on the chest of the deceased, and then the pyre is lighted in three places. The performer of the crematory rite carries an earthen pot round the pyre. The officiating priest punctures this pot with a knife, and receives the water in another pot; he then throws this water on the pyre. The earthen pot is then smashed and flung away. This part of the ceremony is said to symbolize that the deceased has had his ablation in the water of the Ganges, and the fire god, Agni, represented by the *homam*, was witness to the same. The fire god is supposed to witness every ceremony enjoined by the Vêdas. After the body is burnt, those who attended the funeral go away and bathe.

The disembodied soul is supposed to enter a body called Sûkshma Sarira, and eventually goes to heaven or hell as it deserves. But before it can reach its destination, ceremonies must be done consisting chiefly in oblations on each of the ten days following death. These are for the



NARRAYA MANGALATHA.
NARSIMHAN NAMBUDRI.

purpose of causing the *préta* or spirit to grow out of the *Dhananjaya Vāyu*, which causes deformities and changes in the deceased after death. Each day's ceremony completes a limb or part of the *préta*, and the body is complete in ten days. On only the third day after death the ashes of the deceased are collected in an urn, and buried at the place of cremation or close to it. This is. *ékóddishta*. On the eleventh day all the members of the family go through a purificatory ceremony, which consists in swallowing the *Panchagavya* and changing the sacred threads. They then perform a *sráddha*, offering balls of rice, &c., to the deceased and *three of his ancestors*, and end with a dinner to *Brāhmans*, to whom presents in money and cloths are also given.

There must be done twelve *sráddhas*, one in each month following, when water and balls of rice, called *pindas*, are offered to the spirit. The twelfth *sráddha* is the *sapindikarana*, which elevates the deceased's spirit to the rank of an ancestor. Following this there is but the annual *sráddha* or the yearly anniversary of death, calculated according to the lunar or astronomical year, when *not less than three* *Brāhmans* are well fed and given presents of money and cloth.

Legendary History.—A *Nambútiri* refers to the *Kéralótpatti*, the legendary history of Malabar, when questioned about the past. The *Nambútiris* and their organization according to *gramams* owe their origin in legend, so far as Malabar is concerned, to *Parasu Rāma*. *Parasu Rāma*, *Rāma* of the axe, an incarnation of *Vishnu*, had, according to the puranic story, slain his mother in a fit of wrath, and was advised by the sages to expiate his sin by extirpating the *Kshatriyas* twenty-one times. He did so, and handed over the land to the sages. But this annoyed the *Brahmans* exceedingly, for in the arrangement they got no share ; so they banished *Parasu Rāma* from the land. He had no land wherein to dwell. By performance of austerities he won from the gods the boon to reclaim some land from *Varuna*, the sea god. Malabar was then non-existent. He was allowed to throw his axe from Cape Comorin, and have all the land within the distance of his throw. So he threw his axe as far as *Gókarnam* in South Canara district, and immediately there was land between these two places, within the direct line and the Western Ghāts, now (the Native States) *Travancore* and *Cochin*, Malabar and part of South

Canara. To this land he gave the name Karma Bhúmi, or the country in which salvation or the reverse depends altogether on man's individual actions, and blessed it that there be plenty of rain and no famine in it. But he was alone. To relieve his loneliness he brought some Brāhmans from the banks of the Krishna, but they did not remain long, for they were frightened by the snakes. Then he brought some Brāhmans from the north and, lest they too should flee, gave them peculiar customs and located them in 64 gramams. He told them also to follow the Marumakkattāyam law of succession, but only a few, the Nambútiris of Payyanúr, obeyed him in this. But the Brāhmans ruled the land with severity, so that the people (who had somehow come into existence) resolved to have a king under whom they could live in peace. And, as it was impossible to choose one among themselves, for his rule could not be impartial, the Brāhmans chose Kéya Perumál, who was the first king of Malabar, and after him Malabar was called Kéralam.

The incidence of the number 64 in folklore is curious.

The truths underlying this legend are that Malabar, the littoral strip generally between the Western Ghâts and the sea, is certainly of recent formation geologically. It is not very long, geologically, since it was under the sea; and it is certain that the Nambútiris came from the north. The capital of the Chéra Kingdom was very probably (indeed it is tolerably certain, though the fact is not yet admitted) on the west coast not far from Cranganore in the Travancore State, the site of it being now called Tiruvanjikkulam. There is still there a Siva temple, and about quarter of a mile to the south-west of it are the foundations of the old palace. So I have been informed, but have not seen the foundations. The rainfall of Malabar is, as is well known, very high, ranging from 300 inches in the high hills to about 120 on the coast.

The Keralótpatti relates the story of the exclusion of the Panniyûr Brāhmans from the Vêdas. There were in the beginning two religious factions among the Nambútiris; the Vaishnavas or worshippers of Vishnu in his incarnation as a boar, and the Shaivas; the former residing in Panniyûr (pig village) and the latter in Chovûr (*Shaiva's* village). The Shaivas gained the upper hand, and, completely dominating the others, excluded them altogether from the Vêdas; so now the Nambútiris of Panniyûr are said to be



NARRAYA MANGALATHA.
NARSIMHAN NAMBUDRI.

prohibited study of the Védas. It is said, however, this prohibition is not observed, and that, as a matter of fact, the Panniyūr Nambútiris perform all the Védic ceremonies.

Something may be said of the legendary story surrounding the great Sankaráchárya, the apostle of the Nambútiris. He was born at Kalládi near the Eluvayi river when the country was in peril. Her king had been converted to Islam, and that religion was gaining ground. Brahmanism must be revived, so Shaiva was re-incarnated in the child of a widow. A precocious boy, Sankaráchárya, was knowledgeable in the Védas and the Sastras at an age when others were beginning to study them; and, like another who confounded the Pharisees, using his knowledge to criticize the Nambútiris, was by them excommunicated, he and all his family. He became a Sanyási, and wandered far. The sage Vyása, whom he met, treated him unkindly.* His mother died and he returned to his native place; but even here no one would help him in observance of the rites due to the dead, and he was obliged to seek aid from a Náyar. After this he set about preaching Védántism, concerning which, as Professor Max Müller has said so much, it will not be necessary to dilate in these pages. Great genius though he certainly was, he yielded at last to popular superstitions, and repudiated his wonderful doctrines before he died. Tradition places the scene of his death at Badarikásrama, the residence of the sage Vyása, beyond the snowy Himalayas. If it be true that he recanted and gave up his lofty Védántism for what are called popular superstitions, the instance is but one of those which recur, as if to show how absurdly weak are all man's higher theories of religion in comparison with his earlier beliefs, the earlier beliefs of his race which are deep down in his soul and which seem ineradicable. As the earlier associations of the individual are the strongest, persisting throughout life, so it seems to be with the race; hence the importance of folklore.

No kind of success has attended every attempt to get folk-tales out of the Nambútiri. But tales there must be. In fact there is a class of semi-Nambútiris called Iláyatu, supposed to have special knowledge of them. The Iláyatu are supposed to have sprung from a Nambútiri who was

* Vyasa was one of the seven immortal mortals. The others were—Aswattháma, Bali, Hanuman, Vibíshana, Kṛipa, Parasu Ráma. Introduced no doubt to improve the story.

excommunicated, because he divulged the funeral rites as done by Nambútiris, to a Náyar. Yet the Nambútiris communicated particulars of these rites to my informant, Mr. Venkatrao, a Sáraswat Brahman by caste, belonging to the adjoining district of South Canara—some also to me. Very likely they think there would be loss of dignity in the telling of folk-tales; but whatever the reason these holy men will not tell any.

Caste government.—A complete account, or anything like a complete account, of caste government amongst the Nambútiris would be very valuable. But it is hopeless to expect to get the materials necessary to erect the structure from this very exclusive people, and we must be content for the present with what we have. The Nambútiris will seek the aid of the law in disputes concerning land, rent and so on, but in all affairs of life with which the community has concern, settlement is effected by themselves among themselves. The Nambútiris are supposed—they suppose themselves—to have been planted in 64 gramams or villages, rather village areas, for they never live in villages, by Parasu Râma; and there were originally 8 Smârttas, whose office was hereditary, who had jurisdiction over the gramams—possibly one to every 8 gramams. But at the present time there are only 6 Smârttas, and should one of these families (in which the office is hereditary) die out, his place would be filled by election. In addition to the Smârttas there are 4 Kôymas, or Akakkôymas, whose office, also hereditary, is to carry out the orders of the Smârttas; they are also clerks or interpreters.

When a Nambútiri is believed to have been guilty of an offence against the caste, or when there is a caste dispute in any gramam, the proper course is to represent the matter to the king—in Malabar to the Zamorin—who refers it to the Smârtta having jurisdiction over that particular gramam, ordering him to try the offender after holding a proper inquiry. Minor offences are punishable by infliction of penance, fasting, or doing special pûja to the gods. Graver offences are dealt with by excommunication from the caste; a terrible punishment. Against the decision of the Smârtta there is no appeal. Adultery between a Nambútiri woman and a man of inferior caste is perhaps the most serious of all *caste* offences. A correspondent in "The West Coast Spectator" for the 4th August 1898 thus describes the way in which the Nambútiris deal with it:—"Of the several

curious customs of the Nambútiris, the most remarkable is their investigation of cases of adultery. If a woman misbehave herself, there is no attempt at concealment, although the consequences of exposure are terrible, and not unfrequently the informer against the woman is her father, brother, or son. The procedure is briefly this. The community being informed of the suspected adultery, the woman is confined in an out-house, pending enquiry. The whole of the family is also cut off from association with the community. The Raja in whose jurisdiction the case has arisen (the several Rajas, though they have no territorial sovereignty, still exercise the right to decide all caste questions) being informed of the case, issues orders to the Kôyma or the local head of the community, to the Vaidikan (preceptor) and to the Smârttan (arbiter), to call a meeting of the community and hold an inquiry. A meeting is accordingly held, in which the Raja is represented by a deputy. The inquiry is begun by the Smârttan pretending that he does not know that the suspected woman is confined in the out-house, and in proposing to go inside it. The *dâsi* or Sûdra woman servant of the house prevents him from entering, whereupon he asks her the reason. The servant answers that her mistress is inside, and the Smârttan expresses surprise that she should be in the out-house, and asks the woman again why she is there. The examination then proceeds and, if no incriminating facts are elicited from the servant, the accusers are called upon to substantiate the allegation; and, if they fail—which rarely happens—they are punished severely. If the *dâsi* admit the guilt, the woman herself, who is thenceforward called a *sâdhanam* (thing), is called before the meeting, but the privilege of gosha is still allowed her by being permitted to occupy a room near the assembly. A very minute examination, often very scandalous and indecent, is then conducted by the Smârttan under the instruction of the Vaidikan, according to certain set forms, and the answers are recorded. After all a confession of guilt is wrung out, and the Vaidikan declares that the woman and her seducer, to whatever caste he may belong, ought to be excommunicated. The proceeding then assumes a sad and serious aspect. The woman is considered dead to the family, and her funeral rites are performed in her presence. She is then taken to a public place, where a man from the assembly goes and snatches from her the cadjan umbrella (always carried by Nambútiri females in order to screen them from public gaze), as she is no longer

worthy to carry it. Her dási is ordered to leave her. The Smárttan then claps hands in token of her being turned out of caste.

"In order to mitigate to some extent the intensity of the suffering caused by turning adrift a woman hitherto living in seclusion, provision has been made by the Raja of Cherakkal. A Tiyan near Talliparamba possesses a large extent of land granted by a former Raja of Cherakkal, on condition of his taking under his protection all excommunicated females if they choose to go with him. He has special rank and privileges, and has the title of Mannanar. Whenever an inquiry of the kind takes place, Mannanar gets information of it, and his messengers are ready to carry away the woman. It was the custom in former days for Mannanar's agents to lead the woman to near his house, and leave her at a certain place from which two roads lead to the house—one to the eastern gate and the other to the northern. If the woman happen to enter the house by the eastern gate, she becomes Mannanar's wife, and if she chance to go in by the northern gate, she is considered to be his sister by adoption. This rule, however, is not strictly adhered to now-a-days.

"In the course of inquiry it sometimes happens that the woman, through spite or instigation, names many innocent men as her seducers, and all of them, without being called upon to disprove the allegation, are proclaimed to be excommunicated. Two courses are then open to them to exculpate themselves, viz., *ordeal by boiling oil* and *ordeal by weighing*. The former of these ordeals is undergone under the sanction of the Raja, by the accused person dipping his bare hand in ghee, which has been boiling from sunrise to mid-day, and taking out of it an image of bell-metal. The hand is immediately bandaged, and if, on an examination of it the third day, it be found unharmed, the man is declared innocent. In the other ordeal, the man is made to sit for a certain time in one of a pair of scales, and is declared innocent or guilty, according as the scale ascends or descends. But as these practices do not now prevail, I need not dwell on them at greater length." This account is mainly correct, so it may stand as it is.

Mr. Logan, in his "Manual of the Malabar District," says the trial sometimes lasts for several years, the tribunal meeting occasionally, *the accused* people entertaining the members. All Sráddhas are stopped while it lasts. Until

the woman be found guilty or not guilty they cannot, "owing to the probability that they have unwillingly associated with her after her disgrace, be admitted into society until they performed the expiatory ceremony (Práyaschittam)." He says no amount of evidence is accepted as proof of guilt, unless she confesses. She is *forced* to confess. A Pattar Brahman is used to name the adulterer. He does it for money. No Nambútiri or Embrántiri would do it for any consideration. Expenses of a trial are rarely less than Rs. 1,000 and have been known to amount to Rs. 12,000.

Words or terms used by the caste and names of individuals.

The names of those measured were—

Gótram.	Taravád.	Name.
Angirasa	.. Kolashéri	Nilakanthan.
Vasishta	.. Cherakóth Malishéri ..	Paramésvaran.
Kàsyapa	.. Perúr	Raman.
Kàsyapa	.. Markannattil Perúr.	Harijayandan.
Angirasa	.. { Nerikót Ittisséri ..	Chandrasékhara.
	.. { Püntottil Potaver ..	Vásudévan.*
	.. { Nammanshéri Maryûr.	Grêni:
Bhrigu ..	.. Alakat Kodakalûr ..	Dâmôdaran.
Angirasa	.. { Edathatta Chappanûr.	Sivadâsan.
	.. { Mantral Mazhur ..	Mahésvaran.
Vasishta ..	.. Velur	Bhavasarman.
Angirasa	.. { Kotalil Kokûm ..	Nandi.
	.. { Manial Kokuman ..	Vásudévan.
Bhârgava	.. Meppelli	Harijayandan.
Vasishta	.. Muttadat Mallelshéri.	Kubêran.
Angirasa	.. { Murkatta Chemmara-	Mâdhavan.
	.. { shéri.	
	.. { Mullapalli	Mahésvaran.
	.. { Erivesial	Anantan.
	.. { Mullapalli	Kubêran.
Kàsyapa	.. { Karthikeri Parapar ..	Ramen.
	.. { Kunnoth	Nambiâtan.
Visvâmitra	.. Kizhpat Kunutala ..	Bhavasarman.
Bhrigu ..	.. Alakat Kodakalûr ..	Shannan.
Attri ..	.. Mangalashéri ..	Krishnan.
Visvâmitra	.. Kunhappan Karakad.	Sankaran.

Krishnan Nambútiri, Sankaran Nambútiri ; not Krishnan, Sankaran. Nayars called by these names would (in

* This man has the honorific Adithirippad after his name.

most cases) be Krishnan Nāyar, Sankaran Nāyar; while in the case of Tiyaṅs it would be plain Krishnan, Sankaran. In the case of one who has earned the honorific Adittirippād (as the 6th on the list) he is called thus: Vāsudēvan Adittirippād. When addressing each other, Nambútiris use the names of their respective Illams or Manas, not their names. They are also spoken of by the people generally thus—the Naras Nambútiri (the Nambútiri of the Naras illam), or the Maranāt Nambútiri (the Nambútiri of the Maranāt illam). However well known a Nambútiri may be, as, say, a landlord, very few of the people know his name. They know him only as the Naras Nambútiri; and so on.

When talking amongst themselves, Nambútiris use the vernacular in the ordinary way, but, when a Nambútiri is talking with a Nāyar, or indeed with one of any other caste, the manner in which the conversation must be observed, strictly according to custom, is such that the Nambútiris' superiority is apparent at every turn. Thus, a Nāyar addressing a Nambútiri must speak of himself as a "foot servant." If he mentions his rice he must not call it *rice*, but his "*gritty rice*." Rupees must be called his "*copper coins*," not his rupees. He must abase himself as he proceeds. He must call his house his "dung pit," and so on. And he must speak of the Nambútiri's rice as his "*raw rice*," his coppers as rupees, and his house or his Illam or Mana. The Nāyar must not call his cloth a cloth, but "an old cloth," or "a spider's web." But the Nambútiri's cloth is to be called his "daily white cloth," or his "superior cloth." Thus the Nāyar, speaking of his bathing, says he drenches himself with water; the Nambútiri "sports in the water" when he bathes. Should he speak of eating or drinking, the Nāyar must say of himself that he "takes food," or "treats himself to the water in which rice has been washed." But, should he speak of the Nambútiri eating, he must say the Nambútiri "tastes ambrosia." So the Nāyar calls his sleeping "lying flat," and the Nambútiris "closing his eyes" or "resting like a Raja." The Nāyar must speak of his own death as "the falling of a forest, but of the Nambútiri's as "entering fire." His illness is "his limbs have become stiff" but he must never speak of illness to a Nambútiri who only becomes "unwell." The Nambutiri is not *shaved* by the barber; his "hairs are cut"; he is not *angry*, but merely "*dissatisfied*"; he does not *clean his teeth* as the Nāyar; he cleans his "superior pearls." Nor does he *laugh*; he "displays his superior pearls."

The names of women are generally after goddesses : Pârvati, Lakshmi, Dêvaki, Nârâyani, Subhadra.

Games.—Nambútiri boys play a game called pantukali with a football made of coir. On each side there is a hole, and the game consists in trying to put the ball in the hole of the opposite side. Some of the more enlightened (?) Nambútiris play cards, using cheap English-made cards from the bazaar ; also chaturangam, or chess.

Religion.—The Nambútiris are Védic Bráhmans : their scriptures are the Védas. In Malabar one sees none of the strict differentiation between worshippers of Vishnu and Siva, or indeed between any of the forms of the deity, whether venerated as gods or goddesses, which are to be seen elsewhere in Southern India beyond Malabar and Travancore, generally called “ the west coast.” The people generally do not, as a rule, give much regard to such differentiation. The Nambútiris do, but by no means to such an extent as one sees for example amongst the Sri Vaishnava Bráhmans of holy Conjeeveram who are divided into two sects, each hating the other with the most acrid bitterness. True, disputes such as exist between these sects are more concerned perhaps with ritual than with conceptions of the deity or forms thereof. It is nevertheless true that, although the structure of the Shaiva temple, always circular (the temple proper, that is), or of the Vishnu temple, or of any offshoot of these deities, is strictly maintained, when one speaks to, say, the ordinary Nayar, one finds that he knows nothing of the distinctions, more or less subtle, governing the conceptions of the various forms of the deity, with which one is familiar in Southern India generally. It is, however, safe to say that the Nambútiris are Shaivas—worshippers of Shaiva ; but not to the exclusion of Vishnu. The ordinary Southern India Vaishnava Bráhman, a worshipper of Vishnu in whatever form, has nothing to do with the Shaiva temple over the way, and takes no part or interest in the Shaiva festivals. Shaiva is to the Nambútiris the supreme deity, but he has temples also to Vishnu, Krishna, Narasinha, Sri Rághava, Ganapati, Subrahmanya, Bhagavati, &c. I am told there are temples to Sástavu and Sankarnarâyanan, amalgamated forms of Shaiva and Vishnu, but do not remember having seen any. The lingam is the ordinary object of worship.

Like all Bráhmans, the Nambútiris believe that the eight directions—eight points of the compass N., N.E., E.,

S.E., S., S.W., W., N.W.—are presided over by eight deities, Ashtadikpálakas, riding on various animals. Indra reigns in heaven and Yâma in hell, and Sûrya is the sun god. All these and their wives are worshipped. Pârvati shares adoration with Siva, Laksmi with Vishnu, and so on. They believe too in the existence of evil spirits which influence man, but they do not worship them, nor, so far as I know do they propitiate them.

It is said that the Nambútiri has of late been influenced by Vêdantism; that wonderful religious idea of the existence of one spirit or Âtman, the only reality, outside which the world and all besides is mere illusion, and whose doctrine is wrapped up in three words “Ekam éva advitiam.” There is but one being without a second.

The Nambútiris call themselves “Árya Brahmanar,” Árya Bráhmans. Mr. Logan thinks their claim to Áryan origin is not borne out by their appearance. I think their measures prove it. Their legendary transmigration to Malabar from Northern India is doubtless true. The Brahmanism of Southern India is much tinged with the religion of the earlier races, of which we see examples in some of the village and such like festivals, devil dancing—as it is called—and the like all over Southern India. From all this the Brahmanism of the Nambútiri is relatively free. His is by far the purest form of Vêdic Brahmnism to be met with in Southern India.

A complete account of the religion of the Nambútiris cannot be given in these pages. Hinduism, as it is in Southern India, is a subject which has yet to be dealt with. It is not, as is supposed, a degraded form of the Brahmanical religion, but rather an elevated form of the earlier Dravidian religion; a very different thing. The religion of bloody human sacrifices and its concomitants, exalted more or less here and there by the Brahmanical, is the religion of the masses. The latter is to be seen in a condition of more or less purity, rather less than more; but it, *the religion of the Vêdas*, is not that of the people. Now in contradistinction to the Brahmanism of Southern India as it actually is, the Nambútiri's religion is of the Vêdas from the north, tinged of course by the medium in which it exists.

Sacrifice is, as it were, the heart of it. Hymns, prayer, praise, etc., are subsidiary to sacrifice. The Nambútiri's life is a round of sacrifices, the last of which is the burning of

his body on the funeral pyre. It is supposed that sacrifice was originally, as it seems to be now, a thank offering for blessings received. A very doubtful supposition, I think. The sacrifice is an offering of food to the gods, and is made use of to propitiate and obtain favours. Thus, when the Nambútiri has no male issue, he performs the Putra kàmèshti, or the Karma-vipàkaprāyaschittam yāgams or sacrifices, in order to obtain it; and, should he be unwell, he performs the Mrityunjaya Santi Yāgam (sacrifice), to be restored to good health. And he performs the Aja Yāgam or the "goat sacrifice" in order to obtain salvation. Though animal food is strictly forbidden, and the rule is strictly followed, the flesh of the goat, which remains after the offering has been made in this sacrifice, is eaten by the Nambútiris present as part of the solemn ceremonial. This is the only occasion on which animal food is eaten.

It is difficult for the western mind to comprehend the mystic meaning of the sacrifice, in which the essence of organic substances seems to be offered through sacred fire to the deity; and in which the Fire god, the father of the sacrifice, and the officiating priest are invoked as it were to witness the due observance of the rites attending it. Namaskāram, prostration, is much done during prayers. By some it is done some hundreds of times daily, by others not so much. It amounts to physical exercise, and is calculated to strengthen the arms and the back. It seems fairly evident (the point will be considered later), that in those whose hereditary occupation involves strain (pulling strain) on the arms, it tends to lengthen them. The Namaskāram gives pressure (the weight of the body) on the forearm. It may be questioned whether the frequent Namaskārams of the Nambútiris have shortened his forearm. His forearm, deducting the length of the hand, is shorter by about $1\frac{1}{2}$ centimetres than that of the Southern India Brahman outside Malabar, whose Namaskārams are limited.

It will be well to give here the names * of the sixteen religious ceremonies (Monier Williams names twelve, I think) called Shódasa-karmams. We have met with most of them already—

- (1) Garbhādhāna (impregnation rite).
- (2) Pumsavana (for male issue).
- (3) Garbharakshana (for securing the unborn infant from danger).

* From Mr. Vádhya.

- (4) Símanta (hair parting).
- (5) Jâtakarma (birth ceremony).
- (6) Nâmakârna (ceremony when name is given).
- (7) Nishkramana (carrying out the child).
- (8) Annaprâsana (giving food to the child).
- (9) Chaula (cutting the hair, first time).
- (10) Kêshânta (cutting the beard).
- (11) Karna-védha (boring the ears).
- (12) Upanayanam (initiation).
- (13) Samâvartanam (on return from the house of the guru or teacher on completion of the course of study of the Vêdas).
- (14) Building a house.
- (15) Vivâha (marriage).
- (16) Aparakriya (funeral).

The first eleven have been described already. Most are concerned with birth (11 out of 16 !). The Upanayanam has been mentioned on more than one occasion, but, as it is with the exception of No. (15), marriage, the most important of all the Samskâras mentioned above, and therefore a very important feature in religious ceremonial, something more must be said of it here. Upanayanam means or implies "leading a boy to his guru" (religious preceptor). Until he is invested with the sacred thread in this ceremony, the boy is not one of the "twice-born." He cannot attempt to study the Vêdas, he cannot take part in any religious rite, he cannot say the Gâyatri, he is not a Brahman.

The thread is made of fine country-grown cotton (not foreign), spun by hand. Three very fine threads are spun into one 16 feet long, by a Brahman. He then squats on the ground and winds it thrice round his knees, and fastens the ends in a knot called the Brahma-granthi. This is the sacred triple thread, worn over the left shoulder, and loose under the right arm. It must be white to signify purity ; it must be endless, to signify eternal being, without beginning or end ; and it is worn always as an emblem of the Deity, to remind the wearer perpetually of the Divine Being. The thread is blessed by having the Gâyatri said over it, and being sprinkled with holy water off the sacred kusa grass. The Gâyatri, the most solemn of all utterances to the Brahman, is really an invocation, hymn of praise or prayer to the sun, and is rendered thus by Professor Monier Williams "Let us meditate on that excellent glory of the Divine Vivifier. May he illumine our understanding." The boy is

during this ceremony taught to pronounce the sacred syllable "Om," and some Védic texts. And he is taught some of the moral precepts of Manu and other Sanskrit writers, enjoined to abstain from injuring others, and to keep to truth, honesty, chastity, and self-control.

The boy is thus launched as a *Brahmachâri*—unmarried religious student. The period for this condition has been quoted to me as three years, but in the only case actually noted by me it was said to be eight years—from the eighth to the sixteenth year. During that period the boy sees none but his religious teacher. The *Samāvarttanam* ceremony is significant of his return to his own family; and after it he may be married.

The *Brahmachâri* does not, I think, even as a rule, live in the house with his religious preceptor, but lives at home under certain restrictions as to food and so on, spending most of the day with his guru in the guru's house, and holding aloof from what we consider the proper companionship of boyhood.

Something will now be said of general beliefs. All objects (everything animate or inanimate, organic or inorganic) are believed to be permeated by the Divine spirit. Animals, trees, plants, flowers, are animate, and therefore venerated. The sun, the moon, and the stars are revered on account of some inherent quality in each, as utility or strength, or through their connection with some deity. A god can assume any form at any time: that of a man, a bird, a beast, a tree or anything. The various forms in which a god has appeared are ever sacred. Some animals have been used as vehicles by the gods, and are therefore revered.

Cows, horses, and snakes are worshipped. The cow is the most sacred of all animals. The *Purânas* tell of *Kâmadhenu*, the "cow of plenty," one of the fourteen useful things which turned up out of the ocean of milk when it was churned, and who is supposed to have yielded the gods all they desired. So *Kâmadhenu* is one who gives anything desired. Every hair of the cow is sacred, its urine is the most holy water, its dung the most purificatory substance.

The horse is the favourite animal of *Kubêra*, the treasure-god. The *Uchchaisravas*, the "high-eared" prototype of all horses, also came out of the churned ocean. Sacrifice of the horse, *Asvamêdha*, is the greatest of all sacrifices.

Performance of a hundred of them would give the sacrificer power to displace Indra in order to make room for him.

Snakes are the fruitful progeny of the sage Kāsyapa and Kadru. The Maha Sésha, their Prince, is the couch and canopy of Vishnu, and supports the world on his thousand heads. But attention to the snakes is probably more in the light of the harm which they may do, and propitiatory in character. The Nāga Panchami festival is mentioned on page 58. It is done "when the star Aslésa is in the ascendant."

Among plants, the Tulasi (*Ocimum sanctum*) is of all the most sacred. The connection between it and the basil of the Greek legends is not very clearly established; but, as origins of beliefs or legendary stories cannot detain us at present, we must pass on, noting merely that the Basil is a kind of Tulasi. The Tulasi is supposed to be pervaded by the essence of both Vishnu and Lakshmi. According to some legends it is a metamorphosis of Sita and Rukmini. Its medicinal properties are well known. The daily prayer offered to the Tulasi is thus rendered by Professor Monier Williams: "I adore that Tulasi in whose roots are all the sacred places of pilgrimage, in whose centre are all the deities, and in whose upper branches are all the Vêdas."

The Udumbara (the Indian fig tree) is also sacred. Under this tree *Dattatréya*, the incarnation of the Trinity, performed his ascetic austerities. The Nambútiri says that, according to the Sastras, there *must* be one of these trees in his compound or garden around his house, and if it is not there he imagines it is.

The Bilva (*Ægle Marmelos*) is specially sacred to Shaiva all over Southern India. To the Nambútiri it is very sacred. Its leaves are supposed to represent the three attributes of Shaiva—Satva, Raja, Tama, also the three eyes of Shaiva, and the trisûlam, his trident weapon, and they are used by him in propitiatory ceremonies to that god. An offering of a single leaf of this tree is supposed to annihilate the sins done in three births or existences.

Kusa grass (*Eragrostis cynocuiroides*) resembles the common lemon grass in appearance, and is very sacred, being used in all ceremonies. At that mythical event the churning of the ocean, the snakes were greedy enough to lick the nectar off the kusa grass, and got their tongues split for their pains.

Asvaththa (*Ficus religiosa*), the sacred tree of the Budhists, is very sacred also to the Nambútiri. It is supposed to be pervaded by the spirit of Brahma the Creator.

From the Sun (Sûrya, the sun god) emanates light and heat, and to its powers are due all vegetation, so the Nambútiri worships it daily. He also offers pûja to it as one of the nine Navagrâhas—planets. The Moon, a male deity, is also given pûja for this reason.

The nine Navagrâhas are : Sun, Moon, Mercury, Venus, Mars, Jupiter, Saturn, Râhu and Kêtu.

They influence the destinies of men and therefore come in for some worship. The three last are sinister in their effects, and must be propitiated.

CONCLUSION.

The moral element certainly enters largely into the life of the Nambútiri. And, if it be true, as there seems little reason to doubt, that a religion may be classed high or low according as it does or does not influence the morals of a people, we must class the religion of the Nambútiri high, for his whole life, his moral life we will say, is dominated by it. A peace-loving people, and devoted to their religion, the Nambútiris are beyond doubt. Long may they remain as they are, untouched by what we hear called "progress," but which is really *change*—for better or worse, who knows? Long may they be what they are, the only undisturbed vestiges of Védic Brahmanism.

FRED. FAWCETT.

MALA VÉDARS OF TRAVANCORE.

[The ethnographic importance of the practice of tooth-chipping by the Kádars of the Anamalai hills has been already dealt with by me (Bulletin, Vol. II, No. 3, pages 143-45). To my friend Mrs. J. W. Evans I am indebted for the following note relating to another tribe, which practises the same custom.—E.T.]

As I passed through Palode, a hamlet at the foot of the hills, surrounded by vast tracts of jungle, eighteen Mala Védars were enticed to the camp-shed to be interviewed.

Their physical characteristics were : short stature ; platyrrhine ; hair not remarkably curly—indeed only one, a woman, had a crop of what is popularly (and wrongly) stigmatised as “woolly” hair. The prevailing colour of the skin was a dark copper, only two individuals having the blackish skin common among jungle tribes. Scarcely any beard or moustache was to be seen. All were meagre and stunted in appearance. Many had scrofulous sores. There was a total absence of tattooing. They spoke Malayalam, and wore the Malayáli kudumma (top-knot).

They are no longer hill people, as their name implies. They live, like the Pulayars, in wretched huts amid the rice-flats at the foot of the hills, and are employed by ‘Súdra’ farmers to guard the crops from the ravages of wild beasts.

The upper incisor teeth of both men and women had been filed to a sharp point, like crocodile’s fangs. One ugly old man, Tiruvátiran by name (= the name of a star), had the four teeth very slightly filed. On being pressed for the reason why he did not conform to Mala Védar fashion, he grinned, and said : “What beauty I was born with is enough for me.”—Probably the operation had proved more painful than he could bear ; or, may be, he could not afford to pay the five betel leaves and areca nuts, which are the customary fee of the filer. Any man may perform the operation. A curved bill-hook, with serrated edge, is the instrument used.

Both sexes wore a cotton loin-cloth, mellowed by use and weather to a subtle greenish hue. Red and blue bead

necklaces, interstrung with sections of the chank shell (*Turbinella rapa*) adorned the necks and chests.

One woman, who appeared to be about 35 years old, was of special interest. Nalla (= good) was her name. Her neck and breasts were literally concealed by a medley of beads, shells, brass bells, and two common iron keys—these last, she said, for ornament. Around her hips, over her cloth, hung several rows of small bones—pig and sámbar (*Cervus unicolor*). The Mala Védars find these bones in the jungle, and Nalla, being a woman of comparative wealth (she had two grown-up sons to support her) had been able to barter for the highly-prized bones brass finger and ear-rings, and iron bangles on the wrists. Blue and red beads festooned among her locks of hair. Four upper incisor teeth filed.

Páva (= a doll) was remarkable for the excessive curliness of her hair, and the darkness of her skin. Four upper incisor teeth filed. Too timid to undergo much scrutiny.

Tiruvatíran. Kudimma. Rest of hair of head shaved. Hair straight. Brass rings on middle fingers of both hands. Skin rich deep copper.

Cháttan. A man of about 30, of marked type. Eyes obliquely set; cheek-bones high. Platyrrhine. Black skin. Carried a baby of 10 or 12 months on his hip, and all his gaudy beads had been transferred to the child's neck. Only two teeth filed. The pain had deterred him from having the process continued. A few stray hairs on the chin, that might easily be numbered. A boy of 5 or 6, called Ponnán (= gold) clung to his leg. Not having attained maturity, the boy's teeth were not filed.

Chukay, a girl of 9 or 10. Very bad, swollen, suppurating leg. Teeth not filed.

Ponnán. An aged priest, whose front teeth had dropped out, so that he could no longer chew. A wizened, half-insane looking creature. Prominent forehead (not brow). Sharp features. Used to perform devil-dancing, after the manner of the Pulayars, but is now too stiff to dance, and has to labour like the younger men.

On being asked whether they had any tradition about the custom of tooth-filing, they replied: "It is to distinguish our caste. Our god Cháttan would be angry, if we neglected this custom."

They apparently possess no temples or shrines, but the Hindus permit them to offer money at the Hindu shrines

from a distance, at times of sudden sickness, or during other seasons of panic. Their god Cháttan, or Sáttan, has no fixed abode, but where the Mala Védars are, there is he in the midst of them. They bury their dead in a recumbent posture, near the deceased's hut.

Their laws of inheritance are a mixture of Marumakattáyam and Makkattáyam, for they divide their property between son and nephew. They practise the primitive method of kindling fire by the friction of wood (also practised by the Kanakars), and, like the Kanakars, they eat the black monkey. Their weapons are mamoties (bill-hooks) and bows and arrows. They weave grass baskets, which are slung to their girdles, and contain betel.

Another contingent of Mala Védars from Palode, whom I saw in Trivandrum, told me that at home the men wore only dresses of leaves. But this party did not corroborate the statement.

I presented the simple people with a rupee. The coin was passed from hand to hand with much comment, and a look of utter perplexity. "There are 28 chukkrams in this rupee," said the spokesman, "and how to divide 28 chukkrams among 18 people we cannot understand."

FLORENCE EVANS.

MISCELLANEA.

For the first time since the commencement of the Bulletin series, in 1894, I am relieved of the cares of authorship, and assume the secondary character of editor, wherein, with the generous help of collaborateurs, I hope to re-appear.

Erratum.—I have to acknowledge an error, which escaped my notice in reading the proof-sheets of Bulletin, Vol. II, No. 3, wherein (page 192) quoting from Keane's 'Ethnology,' I overlooked the omission of the words in italics in the following extract: "It would seem that the position of the Dravidas is somewhat analogous to that of the *European Magyars*. Both have been assimilated to the *Caucasic type*, and both have accepted *Aryan culture*, while preserving intact their non-Aryan speech." As the quotation stands, in its published form, I make Mr. Keane responsible for the statement that the Dravidians are analogous to the *Caucasic type*, instead of that, like the *Mongolic Magyars*, they have been assimilated by miscegenation to the *Caucasic type*.

Kádir Comb.—Dr. K. Th. Preuss has drawn my attention to an article (Globus, 1899), entitled 'Die Zauberbilderschriften der Negrito in Malaka,' wherein he describes in detail the designs on the bamboo combs, etc., of the Negritos of Malacca, and compares them with the strikingly similar designs on the bamboo combs worn by the tooth-chipping Kádir women of Southern India (Bulletin, Madras Museum, Vol. II, No. 3). Dr. Preuss works out in detail the theory that the design is not, as I have called it, an ornamental geometric pattern, but consists of a system of hieroglyphics. [*Vide* also Ploss, Das Weib, Vol. I, page 635.]

Yanádi Skull.—For the skull, of which the measurements are here given, I am indebted to Mr. T. Ranga Rao, whose essay on the Yanádis of the Nellore district, broad-nosed, dark-skinned, and short of stature, I hope to publish after it has done its duty as an essay for the M.A. Degree of the Madras University.

		cm.
Maximum length from glabella	..	18.4
Maximum transverse breadth	..	12.4
Cephalic index	.. ..	67.
Minimum frontal breadth	.. ..	9.1
Horizontal circumference	.. ..	49.5

Ant-posterior curve (nasion to basion). Callipers—

Frontal	.. ..	10.9
Parietal	.. ..	11.8
Occipital	.. ..	9.6
Basio-nasal	.. ..	10.2
Basio-alveolar	.. ..	10.
Nasio-alveolar	.. ..	6.8
Nasal height	.. ..	5.3
Nasal breadth	.. ..	2.7
Nasal index	.. ..	51.

Skull long oval, viewed from above. Nasal bones concave. Superciliary ridges well developed.

The measurements of three Yanádi skulls, as recorded in the catalogue of the Royal College of Surgeons Museum, are as follows :—

					Three Skulls.		
Horizontal circumference	...	...	...	...	46.8	46.	47.
Length	...	...	...	...	16.9	17.	17.
Breadth	...	...	...	...	11.9	12.5	12.3
Cephalic index	...	...	...	...	70.4	73.5	72.4
Nasal height	...	...	...	...	4.9	3.7	4.4
Nasal breadth	...	...	...	...	2.3	2.1	2.5
Nasal index	...	...	...	...	47.	57.	57.

The measurements are in centimetres.

Tamil Skull.—In Plate VI is represented the skull of a Tamil man (caste unknown), who died some time ago in the Madras hospital, which recalls to mind Huxley's inclusion of the Dravidians in the Australioid group of the Leiotrichi (with smooth hair) "with dark skin, hair, and eyes, wavy black hair, and eminently long, prognathous skulls, with well-developed brow ridges, who are found in Australia and in the Dekhan" (*i.e.*, Southern India)—*Vide* also Bulletin, Madras Museum, Vol. II, No. 3, page 186.



TAMIL SKULL.

The measurements of this interesting skull, dolichocephalic, with true prognathism, and pronounced superciliary ridges, are as follows :—

	CM.
Maximum length from glabella ..	18.2
Maximum breadth	13.5
Cephalic index	74.2
Minimum frontal breadth ..	9.4
Horizontal circumference	50.6

Ant-posterior curve (nasion to basion). Callipers—

Frontal	11.6
Parietal	11.8
Occipital	8.8
Basio-nasal	10.
Basio-alveolar	9.8
Nasio-alveolar	7.3
Nasal height	5.1
Nasal breadth	2.5
Nasal index	49.

Tinnevelly riots.—My anthropological programme for the year has been dislocated by the recent riots between the Shanars and Maravans in the southern districts of the Madras Presidency. A form of outrage, perpetrated in the course of these riots, and dependent on 'fashion in deformity,' consisted in tearing the widely dilated lobes of the ears of the Shanar women, who, like the Kallans and Maravans, stretch the lobes to the utmost limit, and wear therein massive ornaments. "The Shanar women," a correspondent writes to the local press, "have distended lobes, with curious gold or silver rings hanging thereto. In making a tug at these ornaments, the Maravars invariably tore the ears of the Shanar women; and to-day, in the Tenkasi villages, there are actually hundreds of women who have had their ears torn in this way." Hundreds of Shanars were, with a view to their safety, converted to Islam. And I read that "the Shanars, men, women, and children, have bodily gone into the Mahomedan fold, their places of worship, the Amman Coil and things of that sort, having been converted into Mahomedan places of worship. The men have shaved their heads, and are growing beards, and the women have made sundry changes in dress, etc. And another ceremony (circumcision) has been performed in the case of the boys. There can be no doubt that this wholesale

conversion was not the outcome of any hankering for Islámism as a faith, but the outcome of a sudden panic." The remarkable fact that the Kallans of the Madura district practise circumcision is regarded by Mr. Nelson (*Madura Manual*) as a survival of the forcible conversion to Muhammadanism of a section of the Kurumbas who fled northwards on the downfall of their kingdom. And, writing concerning the Cherumars ('agrestic slaves') of Malabar, Mr. Logan (*Malabar Manual*) states that "conversion to Muhammadanism has had a marked effect in freeing the slave caste from their former burthens. By conversion a Cheruman obtains a distinct rise in the social scale, and, if he is in consequence bullied or beaten, the influence of the whole Muhammadan community comes to his aid. With fanaticism still rampant, the most powerful of landlords dares not to disregard the possible consequences of making a martyr of his slave."

Todas in Court.—The Deputy Commissioner of Ootacamund was recently engaged in the hearing of a dispute, which appears to have arisen under the following circumstances. "A young Toda, having paid the necessary five buffaloes, took to wife a young Toda damsel of some eighteen summers. Shortly afterwards, another young man of the tribe, enamoured with the young bride, seems to have won her over to his side, and, by the payment of *six* buffaloes, secured a cancelment of the first marriage, and took the girl away as his legal wife. The first husband now claims the girl, and has sought the intervention of the police." The case has, I gather, been compromised out of Court.

EDGAR THURSTON.

MADRAS GOVERNMENT MUSEUM.

Bulletin, Vol. III, No. 2.

THE SEA FISHERIES

OF

MALABAR AND SOUTH CANARA.

With Seven Plates.

BY

EDGAR THURSTON,

SUPERINTENDENT, MADRAS GOVERNMENT MUSEUM.

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SEA FISHERIES OF MALABAR AND SOUTH CANARA.

As an indication of the lines on which research might be advantageously carried out by a State Fishery Board, with a staff of men trained in modern technique at one of the marine biological stations, and competent to grapple with economic problems, and the study of physical science and applied marine zoology in their relation to the sea-fisheries of the Madras Presidency, I may with advantage preface my remarks by a reference to the scope of a journal, started under the auspices of the Russian Imperial Society of Fish Culture and Fisheries. The programme of this publication, which is a sequel to the International Fishery Congress held at Bergen in 1898, includes "new facts pertaining to fish and oyster culture (statistics, new methods used in fish-culture, inventions, etc.). New facts and data pertaining to fisheries (statistics, fishing news, inventions, new laws, etc.). Professional education of fishermen, and of workmen engaged in the manufacture of preserved fish. Novelties in the manufacture of fish products (new patents, new canneries, etc.). Improvements in the fish trade, and in the methods of carrying fish (fish-markets, cold-storage houses, refrigerators; new duties on imported fish). The work of fishery-societies. Review of scientific investigations connected with fisheries. New books on fish-culture and fishing. Personal notes." With this comprehensive syllabus before the reader of the present report, it must appear thin and invertebrate. And I only claim for it that it has been prepared, amid manifold duties, from personal notes made during an inspection of the fish-curing yards of the western coast of the Madras Presidency.

It has been argued, with reference to the British fisheries, that the State should neglect no opportunity of mastering, through the agency of a duly qualified department, every detail, natural as well as artificial, of the fishing industry;

and might do much, apart entirely from 'protection' and 'encouragement' of the fishing industry. In the absence of a Fishery Board, the vast fish-curing operations, which are carried on throughout the littoral of the Madras Presidency, both on the west and east coasts, washed respectively by the waters of the Arabian Sea and Bay of Bengal, are at the present day supervised by the Salt Department. And departmental interest is mainly centered in the supply of Government salt to the fish-curers, and the prevention of theft and smuggling thereof. It has, however, been laid down as a principle that "there is no intention of making the fish-curing industry a source of revenue. It is sufficient if Government is enabled to encourage it without cost, and this is so."

The administration of the Salt Department is carried out by a Commissioner, selected from the senior ranks of the Civil Service, who, with the assistance of a Secretary, controls the following establishment :—

—	No.	Scale of pay.
Deputy Commissioners.	4	3 on Rs. 1,200 to Rs. 1,400 each; 1 on Rs. 800 to Rs. 1,000.
Assistant Commissioners.	15	2 on Rs. 800 each. 3 on Rs. 600 each. 4 on Rs. 700 each. 6 on Rs. 500 each.
Inspectors ..	79	11 on Rs. 400 each. 21 on Rs. 300 each. 17 on Rs. 350 each. 30 on Rs. 250 each.
Assistant Inspectors.	111	35 on Rs. 175 each. 40 on Rs. 125 each. 36 on Rs. 150 each.
Sub-Inspectors ..	832	74 on Rs. 70 each. 207 on Rs. 40 each. 101 on Rs. 60 each. 297 on Rs. 30 each. 153 on Rs. 50 each.

To which establishment must be added a host of peons,¹ petty officers, and menial servants.

For the fish-curing yards of the west coast (Malabar and South Canara), the following establishment is allotted, in accordance with the magnitude of the operations carried on:—

- | | | |
|--|---|-----------------------|
| (1) For yards selling less than 1,500 maunds ² of salt per annum. | } | 1 petty officer. |
| | | 1 second-grade peon. |
| (2) For yards selling more than 1,500, but less than 3,000 maunds. | } | 1 petty officer. |
| | | 2 second-grade peons. |
| (3) For yards selling more than 3,000 maunds. | } | 1 Sub-Inspector. |
| | | 1 first-grade peon. |
| | | 2 second-grade peons. |

For admission into the department, a test of physical fitness is required. And the rules lay down that:

No persons shall be appointed (either permanently or temporarily) to any office in the department, who are under 18 or over 25 years of age, and who are not at least 5 feet 5 inches in height and 32 inches round the chest. In the case of non-commissioned officers, and soldiers of the Native Army, pensioned or discharged with good characters, the rules as to age may be waived. As a rule, however, it will be well not to take in men over 40 years of age.

The appointment of Brahmins as petty officers or peons is prohibited, save under the special sanction, in each case, of the Commissioner. (One of the chief reasons is, I believe, the objection of Brahmins to drill alongside men of inferior caste.)

The pay of the Sub-Inspectors of the lower grades being too low for the maintenance of Europeans and Eurasians in decent comfort and freedom from temptation, their appointment to the fourth and fifth grades, and to lower classes, is prohibited save under special sanction.

As defined in a text-book of chemistry, salt is stated to be sodium chloride (NaCl), which occurs as rock-salt in large

¹ "Peon meaning a footman. In the sense of 'orderly,' peon is the word usual in South India. The word is likewise employed very generally for men employed on police service."—*Yule and Burnell, Hobson-obscon.*

² Throughout this report the maund must be taken as being 82½ lbs. avoirdupois.

deposits in various geological strata, in solution in sea-water and brine springs, and, in small quantities, in all running water. For the purpose, however, of the administration of the Salt Department, a more elaborate definition is necessary. And the Madras Salt Act (Uppu Act), 1889, lays down that :

- (a) "Salt" means chloride of sodium, and includes swamp salt, spontaneous salt, and salt or saline solutions made or produced from any saline substance or from salt-earth.
- (b) "Saline substance" means any substance naturally containing salt.
- (c) "Contraband salt" means salt, saline substances, salt-earth, or saltpetre manufactured without licence, or dealt with by any person in contravention of any enactment for the time being in force, or of any order, permit, or licence issued thereunder, or of any rule made in pursuance thereof. But it shall not include salt-earth which has been merely excavated or collected, unless such salt-earth is found within the limits of any local area, wherein such salt-earth is declared by a notification of the Governor in Council to be contraband salt, nor shall it include sea-water.

In fear of being dealt with by law for criminal possession of salt, a member of my staff recently applied to me for special sanction of Government to permit him to make a solution of picric acid in sea-water for the preservation of sea-weeds !

It is not surprising that, in yards placed in charge of men in receipt of small salaries, and entrusted with the care and disposal of a saleable commodity bearing a distinct market value outside the precincts of the yard, and with the distribution of salt to the fish-curers, who, at times of big catches, are naturally anxious to obtain possession of the curing agent with the least possible delay, the temptation to commit theft and levy black-mail sometimes gains the upper hand. And, as specimens of mild departmental offence and fraud, the following cases may be cited :—

Petty officer reduced for suspicious irregularities in keeping the fish-curing books.

Petty officer suspended for carelessness in issuing salt to curers.

Petty officers dismissed, degraded, and prosecuted for not being able to account satisfactorily for salt found in their houses.

Petty officers reduced for irregular distribution of salt to fish-curers under suspicious circumstances, and for allowing the removal of dried fish before weighment.

Sub-Inspector made to pay cost price and duty on several maunds of salt found short in the stock at one of the yards.

In connection with 'the wickedness of the people,' I may quote the following note, prepared for me by an Assistant Commissioner: "The sins of the fish-curers are generally petty, unless the yard officer connives with them, in which case serious irregularities in connection with the disposal of salt may naturally be expected to go on. It is undoubtedly a fact that there is more temptation to dispose of Government salt on the east than on the west coast. On the former, similar salt is sold in the local bazárs, and the yards are in charge of petty officers; whilst, on the west coast, Bombay salt, which is in much larger crystals and lighter in colour than Madras salt, alone is sold locally. Besides which, the yards are, for the most part, in charge of Sub-Inspectors, and a larger staff of peons is employed.

"The sins, when the curers and establishment combine, consist firstly of passing out bags of salt from the fish-curing yard, when operations are heavy, or when the whereabouts of the migratory circle officers is well known; secondly, of issuing excess salt to curers, who either use old brine, or get salt in quantities sufficient for big fish, when they only have small fish to cure. This is, no doubt, the commonest form of fraud in vogue. To check it, inspecting officers are required to pass out dry fish, and note the percentage of dryage. And, in order to admit of this being done, each curer keeps his fish separate, and covered by a ticket showing the date of its admission into the yard. These tickets are stuck up against each consignment of fish, to admit of a check being possible. Other minor checks are employed, *e.g.*, gate note-books, in which the quantity of fish brought in is noted by the peon. And, once a quarter, the local range Sub-Inspector is required to take charge for two or three days; and the results obtained by him in dryage and quantity of salt issued are compared with the yard officer's results. On the west coast, when operations are very heavy, the establishment is, no doubt, at times inadequate. Advantage is undoubtedly taken of this

to collect from four to eight annas per bag of salt from the curers, who doubtless pay the same, knowing that they thereby obtain certain unauthorized privileges when catches are heavy, and night curing is a necessity. It is needless to observe that everything is done to check this. But, as long as both parties agree, it is impossible to prove anything. It must be remarked that, on the west coast, this system of 'tips' pays the yard officer better than running the risk of passing out salt which is unsaleable.

"The remaining sins of the curers consist chiefly of throwing away stale brine in their sheds, of using part of it, and surreptitiously removing small quantities of salt thus saved for home consumption.³ On the whole, the west coast curers are very amenable to discipline, and there is little to complain of about them in connection with conservancy arrangements."

As examples of the mild wickedness of the fishing community, the following extracts from the Salt Department reports may be cited:—

Sadras yard.—Owing to a strike among the fish-curers against the enforcement of an essential rule to keep fish in the yard for at least 36 hours, the yard was ordered to be temporarily closed.

Drying fish at home, after soaking it in sea-water, was adopted by some of the Vizagapatam fishermen, with a view to evade payment of the cost of salt. This practice, which was growing rapidly, received a check by the prosecution of many of the offenders under the Municipal Act, as it is of necessity noisome.

Thalai yard temporarily closed owing to the refractoriness of the curers in refusing to pay rent for the use of the yard, and to keep the buildings and fences in proper repair.

For some years a section devoted to fish-curing experiments appeared in the annual reports of the Salt Department. These experiments seem to have been mainly carried out, on a modest scale, with a view to the introduction of improved methods of curing, and the creation of a taste among the fish-eating community for a superior article. Great difficulty appears to have been experienced in purchasing fish of the

³ Excluding the salt sold for export, and supplied to the French Government and for fish-curing, the quantity of salt passed into consumption in the Madras Presidency during 1897-98 was 8,379,313 maunds.



FISHING VILLAGE, CANNANORE.

better kinds in sufficient quantities to admit of experiments being made on a large scale, because it was necessary to purchase from the traders, and not from the fishermen, who refused to sell, as they were, in return for advances of money, under engagement to deliver all the fish caught to the traders. In the half-yearly report of the Salt Department, 1884, I read, however, that "though no very large experiments were made with improved methods of curing, such as were made proved fairly successful. At two yards in the Calicut circle, 262 maunds of fish were dealt with, and the price realised in both cases was 8 annas a maund in excess of that realised for fish cured in the ordinary manner. The price would, no doubt, have been higher, had the fish experimented on been of the finer kinds, instead of shark and cat-fish. Another experiment, conducted by Mr. Inspector Beeson at Kistnapatam in the Nellore district, was more successful. The fish cured in the course of this experiment were sent by Mr. Beeson to Madras, and realised a profit of about 33 per cent., which was very satisfactory. The fish cured in the improved manner is reported to be eagerly bought, and a trader in Madras has offered to purchase any quantity that may be available. No doubt, the curers will in time find out that it will pay them to take more trouble, where a market can be found for a better article, that is, in the neighbourhood of large towns. The lower classes appear indisposed at present to pay more for fish cured in a superior, and therefore more expensive manner."

In the report, 1884-85, it is stated that "the experiments made by officers of the department, with the object of teaching the fishermen better methods of curing, have not been very successful. In most places it has been found difficult to procure fresh fish with sufficient regularity, and at reasonable prices, and to arrange for a ready sale. The experiments of one or two officers have, however, been exceptions to the general rule, and have not only raised the standard of fish-curing in the neighbourhood, but have proved that better and more costly methods may be made actually more profitable than the old careless treatment of the native fishermen. Whatever be the cause to which the improvement is due, there is no doubt that a much better article is now turned out than hitherto, especially on the west coast, where the fishermen seem to have little to learn from us in the way of producing a sound, marketable article of the common sort. There is, of course, no demand for delicacies in the way of

cured fish, such as find a ready sale in Europe at remunerative prices." In a further report (1884-85), the Salt Commissioner expressed his opinion that "the curers have very little to learn from us, as they already adopt varying methods to suit the requirements of the different markets which they supply. I have frequently eaten in my own house salted fish from the west coast bought in the bazár at Ootacamund, and can testify to its excellence."

As I have pointed out elsewhere,⁴ in the British trade different kinds of fish are distinguished by the terms 'prime' and 'offal'; and, as the names imply, the former are consumed by the richer, the latter by the poorer classes. In India, even more than in Great Britain, the fish supply is essentially a poor man's question, and the prosperity of the fishing industry depends largely on the offal, and not on the prime, though, as will be seen hereafter, large quantities of seir and mackerel are exported by coasting steamers. In the City of Madras, the 'microscopic minority' of Europeans, who are regular fish-eaters, will go on year after year without seeing at their table any other fish, out of the large variety which is sold in the Madras fish-market, than seir (several species of *Cybium*), pomfret, white, silver, grey, or black⁵ (*Stromateus sinensis*, *S. cinereus* and *S. niger*); the so-called whiting (*Sillago sihama*); and perhaps an occasional flat-fish (*Psettodes erumei*), which is a poor substitute for a Torbay sole. During three years' residence in Calcutta I only saw served up hilsa (*Clupea ilisha*), which, though bony, is excellent when smoked; begti (*Lates calcarifer*, the nair fish); and the mango fish or tupsee muchee (*Polynemus paradiseus*), which comes up the Hooghly river for spawning purposes in very large numbers. Again, at Cochin, out of about forty different kinds of fish classed as edible by the native community, which were being caught at the time of my visit, only four were considered fit to place before me, viz., seir, whiting, mullet, and "sardines."

To return to fish-curing experiments. In 1893 the Board of Revenue, having from time to time observed that the fish-curing experiments conducted by the Salt Department have had no effect in inducing curers to adopt improved methods of curing, requested the Deputy Commissioners to consider and report on the advisability of continuing them. They

⁴ Bulletin No. 2, 1894: Note on Tours on the Malabar Coast.

⁵ Silver pomfret is the immature, and grey pomfret the adult *Stromateus cinereus*.

were unanimously of opinion that the conduct of these experiments was a mere waste of valuable time, inasmuch as the curers were in no way influenced by them, and adhered to their own methods of curing. The experiments were, therefore, ordered to be discontinued.

In 1897 the Board, in a resolution on the subject of fishery investigations, stated that "in 1884 orders were given for the record of the quantities of each of the most common kinds of fish, such as sardines, sharks, mullet, cat-fish, etc., brought to each yard for curing, and Inspectors were directed to issue instructions, with reference to local circumstances, as to the descriptions of fish which should be entered. These instructions not having been attended to carefully in some yards of the southern division, the Assistant Commissioners were further informed, in 1886, that the object of insisting up on the scientific classification of the fish brought to the yard was to gain some knowledge of the habits of the most valuable kinds of fish, and of the movements of shoals, and that accurate particulars of the takes of the most valuable descriptions of fish, or of those most abundantly caught, would be of far more value than doubtful statistics regarding many different kinds. . . . It appears probable that the information compiled by the officers in charge of fish-curing yards is vitiated to a great extent by the fact that the various kinds of fish have different names,⁶ under which they appear in different circles, rendering comparison difficult, if not impossible.

The Board, therefore, resolved to forward to the Assistant Commissioner of each coast sub-division a copy of the list received from the Superintendent, Government Museum, containing Latin, English, and vernacular names of the chief kinds of fish, and reference to the illustrations contained in Day's "Fishes of India."

In response to a request from the Board of Revenue, in 1898, that I would draw up a draft of instructions to officers in charge of fish-curing yards for the record of such information regarding the movements of migratory fishes round the coast as would, in my opinion, be most valuable, the following letter was submitted:—

⁶ Five Dravidian languages are spoken on the coast of the Madras Presidency, viz., Tamil and Telugu on the east coast, Malayalam, Kanarese and Tulu on the west.

FISHERY INVESTIGATIONS.

In returning the papers and map relating to fish-ouring forwarded to me for consideration, I may state at the outset that I entirely agree with the statement that it is of importance to gain some knowledge of the habits of the most valuable kinds of fish, and of the movements of shoals, and that accurate particulars of the takes of the most valuable descriptions of fish, or of those most abundantly caught, would be of more value than doubtful statistics regarding many different kinds.

It should, as Mr. D'Arcy Thompson recently expressed it, be the primary object of all marine researches, whether hydrographical or biological, undertaken by National Institutions or by the Central Organisation, "to estimate the quantity of fish available for the use of man; to record the variations in its amount from place to place and from time to time; to ascribe natural variations to their natural causes; and to determine whether, or how far variations in the available stock are caused by the operations of man, and, if so, whether, when, or how measures of restriction and protection should be applied." (Conférence internationale pour l'exploration de la mer, Stockholm, 1899; the proceedings of which might with advantage be studied by any who are interested in Indian sea-fisheries).

2. What is really wanted is, as Professor Ray Lankester has expressed it, "a specially detailed knowledge of the life-history of those species of fishes which are valuable to man, and are the subject of fisheries; a knowledge of their food, and its history in detail; of their enemies in the shape of other fishes, birds, &c., which prey upon them and their young; a knowledge of their parasites, injurious or harmless, and of their diseases. Such knowledge may be termed the special biology of economic fishes."

3. In this connection I may quote from a prize essay on "The Relations of the State with Fishermen and Fisheries," London Fisheries Exhibition, 1883. Mr. C. E. Fryer therein states that "only the most careful and continuous investigation will discover the manifold laws of nature, which govern the migrations of fish, their spawning times and places, their development, the nature of their food, and all the other secrets of their economy. If, when the fishermen are lamenting the absence of the accustomed shoals of herring on their coasts, and fruitlessly throwing the blame on their

neighbours, the State could step in with the assertion that the fish had disappeared because of certain conditions, either of temperature, of food, or of currents, which the fishermen could hardly be expected to take cognizance of, and could tell them where they, or others like them, could be found, it would be giving the most substantial form of encouragement to the fisheries. Norway and the United States have taken the initiative in thus combining scientific research with practical administration in a single department, charged with the superintendence of the fishing industries."

4. I am asked to draw up a draft of instructions to officers in charge of fish-curing yards for the record of such information regarding the movements of migratory fishes round the coast as will, in my opinion, be most valuable. Bearing in mind that the instructions are for petty officers, in the receipt of small pay, for the most part ignorant of English, and incapable of appreciating subtle specific characters, I would suggest that, as an initial experiment, detailed observations should be carried out in connection with the following well-known, but economically important species of fishes, and information concerning them collected for a provisional period of two years, commencing, if possible, at all fish-yards in the Presidency, synchronously with the renewal of fishing operations on the west coast after the present south-west monsoon:—

Clupea ilisha, sable fish or hilsa.

Clupea fimbriata, "sardine."

Clupea lile, "sardine."

Clupea longiceps, oil "sardine" (synonym, *Sardinella neohowii*).

Cybium guttatum, seir.

Cybium commersonii, seir.

Stromateus sinensis, white pomfret.

Stromateus cinereus { grey pomfret (when adult).
 { silver pomfret (when immature).

Stromateus niger, black pomfret.

5. I shall be glad, if the Board so wishes, to take charge of, work up, and summarise the information obtained, and suggest hereafter, in consultation with the Board, such modification of the list of fishes to be kept under special observation as may seem most desirable.

6. It will be observed that I have included among the fishes the several species of "sardines"—all, it may be noted,

belonging to the Clupea or herring family— which are the source of the fish oil industry and fish-manure. And their investigation seems to me of primary importance. The main practical questions which remain to be solved in connection with the “sardines,” are the reasons which attract them to our coast, where they spawn, and where they go to when they depart thence. Fishing in the open sea with a steam-tug to enable the boats to get to and from the fishing ground in spite of contrary winds, and readiness on the part of the fishing community to follow the movements of the fishes to greater distances than are possible under existing conditions, would probably lead to more prosperous and lucrative results. In an article on “the Natural History of the Herring” it has been pointed out that “it has been observed, on the east coast of Scotland, that the inshore fishes—say within the three mile limit—are subject to very great fluctuations, and that at distances of thirty, fifty, or seventy miles from the land, there is a far greater surety of encountering the shoals. When successful, however, the inshore fishing is by far the heaviest; and nets are far more liable to be broken or lost through overloading near the land than at a distance out. The obvious explanation is that the vanguard of the shoal finds itself confronted by the land, and pulls up, while the main body are still pushing forward, and thus a concentration of the forces takes place.” The passage is quoted, as it can be applied to the Malabar herrings or “sardines.”

7. The main practical object to be kept in view in connection with the fishes to be specially studied, seems to me to be the acquirement of a complete natural history of the migratory and other economically important fishes. This would involve a complete acquaintance with the species of fishes, shell-fishes, crustacea, (crabs), fish eggs, &c., on which they feed, and with the conditions under which these species flourish and multiply (close inshore, on the surface, on the bottom, in the deep sea, etc.). The movements of migratory fishes are, it may be noted, largely influenced by search for food and the reproductive impulse. The stomachs of the fishes should, therefore, be examined, and the nature of the contents (or their empty condition) recorded, and samples of the various contents preserved, when possible, for examination by some one competent to identify them. The food of fishes is, as Mr. Yarrell has pointed out, very different at different periods of the year, and this may be one of the causes, among others, of the particular excellence of the flesh

of some species of fishes at particular seasons. The reproductive organs should be examined with a view to ascertaining whether the males are full of milt and the females of roe. This can easily be determined by slitting the fish open on the lower surface from the vent or anal orifice, and examining the "guts." It has been noticed that, along the Coromandal Coast, "sardines" (*Clupea longiceps*) are rarely fat as in Malabar. In the case of sharks and skates (rays) the cavity of the uterus (womb) should be examined for the presence therein of embryos (young), and their number and size recorded. Further, the dates of arrival and departure, and the magnitude of the shoals should be carefully recorded, and the wind force and direction, and the condition of the sky (dull, heavy, or unclouded sunshine) and water (clear, disturbed, or muddy) should be noted. It might also be ascertained whether the fluctuations of the fishery for a particular migratory fish follow a definite periodicity or cyclical order at a particular locality, with regular periods of recurrence and disappearance of the most important migratory fishes. Moreover, the time of day most suitable for fishing under ordinary conditions, *i.e.*, in the absence of shoals, and the reason of the preference for a particular time, should be noted. It is well known that fishes, and other marine animals, seek deep and cool water in the heat of the day, and rise to the surface at early morn, and as evening sets in. It would also be advantageous that the various fishes, large and small, which are present in greatest abundance synchronously with the arrival of a big shoal, should be recorded, as indicating not only a possible source of attraction to the coast, but also the species which are in pursuit of the shoal for food. During a sojourn at Calicut I was much impressed with the immense slaughter of small fishes by men fishing from the beach with cast-nets; piles of these small fishes being left on shore as food for birds, &c., after the selection of the bigger fishes which were required for the family evening meal.

8. In the event of any doubt or difficulty arising in connection with the identification of the fishes which are to be specially examined, or others, I would suggest that, as has been repeatedly done in the past, salted and sun-dried specimens should be sent to me, with their local vernacular name attached, for identification. If this course is adopted, confusion, and the record of erroneous, and consequently valueless information, may be avoided.

9. I would suggest that, with a view to a comparison being made of the fishes caught off the east and west coast—viz., the littoral fishes of the Bay of Bengal and Indian Ocean—a census should be held and record prepared, at each fish-curing yard, showing the names and relative abundance of the fishes caught during two entire weeks of the year, one before, the other towards the close of the south-west monsoon. Probably the end of February or early March, and the end of September or early October, would be found to be suitable as regards weather round the entire coast of the Presidency. But the exact dates could be fixed by one of our authorities on meteorological conditions.

10. Attached to this note is a specimen form (Table 1) for the record of observations on the lines indicated, and it would be well that, if my suggestions as to the special line of investigation are accepted, paragraphs 7 and 8 should be converted into Tamil, Telugu, Canarese and Malayalam, so that they may be intelligible to the petty officers responsible for the observations, and maintenance of the records. It is to be hoped, however, that officers of higher grades will take an active interest in the enquiry, and assist its practical outcome by the upkeep of notes and records of personal observations, in amplification of the stereotyped information contained in the columns of the official form.

The suggestions contained in this letter were approved by the Board of Revenue, which passed the following resolution relating to it:—

1. The fish-curing statistics, as at present collected, having proved themselves to be valueless either scientifically or commercially, the Board resolves to put a stop to their record, and to substitute a less ambitious, but more accurate system on the lines suggested.

2. This record will be for the present experimental, and for a period of two years only; and the nine kinds of fish enumerated in paragraph 4 of the letter will alone be dealt with.

3. The record will be written up day by day by the officer in charge of the yard in the form attached. A sub-circular order, giving instructions for the filling in of each column on the lines indicated in paragraph 7 of the letter will be issued in the vernaculars, accompanied by illustrations of the fishes, whose characteristics are to be studied. The Inspectors should start the record themselves, or, if this is impossible, should send an Assistant Inspector to do it. And the Inspector or Assistant Inspector who does it should continue the work, until he is certain that the petty officer in charge of the yard thoroughly understands what is required of him. Only intelligent officers should be posted to the yards, and no changes should be made that can be helped. On occasions when large catches are expected, a senior Sub-Inspector (who should be specially selected for this duty) should be sent to the yard for a week or two, to assist in making the record. The same Sub-Inspector should be deputed to superintend the census. This should embrace not only the catches brought to the yards, but, so far as is possible, the catches of all the fishing villages in the circle, officers being specially deputed to them for the purpose.

By order of the Board of Revenue, it had to be fully explained to the fishermen, if they were shy of giving information, that the enquiries are made purely in their own interests. At the fish census, 1889, the officer, who was told off to make the record of fishes brought ashore, was at first driven away by the fishermen, who refused to give him the requisite information, from fear that the census was being taken with a view to increased taxation.

Fish-curing operations are carried on, in the Madras Presidency, in nine sub-divisions, of which eight are situated on the east, and one (Calicut) on the west. And the great economic importance of the Calicut sub-division, i.e., the fisheries of the west coast, is very clearly brought out by the



FISHING BOATS, CANNANORE.

appended statistical statement (Table II) of operations during the financial year 1897-98 :—

TABLE II.

*Fish-curing Operations in the Madras Presidency,
1897-98.*

—	Number of yards.	Weight of fish brought for opera- tion.	Weight of salt sold.	Value of salt sold.
		Mds.	Mds.	Rs.
Chicacole	34	122,526	11,036	7,007
Cocanada	5	36,580	4,706	2,939
Masulipatam	5	8,599	1,428	736
Nellore	9	34,701	4,563	1,977
Chingleput	7	35,324	4,568	1,810
Cuddalore	3	7,926	1,019	509
Negapatam	10	28,492	4,650	2,269
Tinnevelly	12	48,554	7,169	3,776
Calicut	43	856,235	118,583	1,08,465

The importance of the west coast operations is still more clearly brought out by the following table, in which the aggregate results of the east coast sub-divisions are compared with those of the Calicut sub-division during the same year :—

	Eight East Coast Sub-Divisions.	Calicut.
Number of yards ..	85	43
Weight of fish brought for operation ..	Mds. 322,702.	Mds. 856,235.
Value of salt sold ..	Rs. 21,023.	Rs. 1,08,465.
Weight of salt sold ..	Mds. 39,139.	Mds. 118,583.

The figures speak for themselves, and require no explanation. Suffice it to notice that, with half the number of yards, the outturn of fish in the Calicut sub-division exceeded that of the east coast by 533,533 maunds.

The fish-curing yards of the Calicut sub-division, which includes the Malabar and South Canara districts, are situated on the exposed littoral of the Arabian Sea, and are divided, for administrative purposes, into five groups or circles, viz., from north to south, Udipi, Mangalore, Tellicherry, Calicut, Ponnáni. Of which the most important is Ponnáni.

The economic fishes comprise (a) round fishes, e.g., seir, herrings, mackerel; (b) flat-fishes (e.g., the so-called 'sole'); (c) cartilaginous fishes—sharks and rays (skates)—which are of far greater importance than in British fisheries, and take a leading place. The sharks and skates are known as pal sora, or milk producers, and, when salted, are considered very good for women nursing infants. Even the stomachs and intestines of sharks and skates are sold in the market to the lower classes. The shark *Chiloscyllium indicum* is called in Malayalam oodumbu shiraval, i.e., Varanus shark, from the resemblance of its skin to that of the lizard *Varanus bengalensis*.

Fluctuations in fishery operations from year to year are due to many causes, among which may be noted absence of shoaling fishes, unfavourable seasons, e.g., heavy rain and rough weather out of the normal season, cholera, etc. But on this point I may call in the evidence of the Salt Department reports.

Masulipatam division, 1884-85.—Comparative failure appears to be due to the want, along the coast of the Godáviri and Kistna districts, of a fishing population provided with adequate appliances for the capture of a larger quantity of fish than can be consumed locally while fresh.

Negapatam division, 1884-85.—Heavy decreases due to five yards having been more or less damaged by the cyclone and rains of the last monsoon. Increase in the proportion of salt issued to fish cured due, in the Adirámpatnam Circle, to the extravagant and wasteful method of curing adopted by the fishermen, namely, sprinkling the fish with salt, and shaking the latter off before the removal of the fish. The fishermen, it would appear, decline to use the refuse salt a second time for fear of maggots, and prefer its periodical destruction by the Inspector.

Central division, 1884-85.—The Tellicherry yard caught fire, and had to be pulled down. The huts, in the Indian fish-curing yards, are not solid brick and masonry structures, but largely constructed of bamboo and thatch, which, in the dry season, rapidly burst into a blaze when they take fire.

Calicut sub-division, 1890-91.—Decrease attributed to (1) the Ratnagiri curers (from the Bombay Presidency) having left the Deria Bahadargur yard earlier than usual owing to closer supervision, which has lately been exercised over them, and which (accustomed as they had been to a wasteful process of curing) they found to be very irksome; (2) to a temporary strike among the curers at Gangoli, owing to certain orders issued by the Inspector; (3) to the fish having been found, in the early part of the season, to be infested with an internal parasite, which considerably checked the consumption of the article. The decline in operations at Quilandi was attributed to the difficulty felt in landing fishing boats at low tide, owing to the formation of a mud-bank near the sea-shore. The decrease at Pudiappu was due to the prevalence of small-pox and cholera.

In connection with the occurrence of endo-parasites in fishes, it will be a consolation to fish-eaters to know, on the authority of Cobbold, that "all our marine fishes have entozoa, but probably none of them are injurious to man in India. They need create no scare. Examine any well-grown salmon, trout, pike, etc., and probably any of them will contain at least three different kinds of parasites, each of which will be present in more or less considerable numbers. The presence of worm guests, therefore, does not imply any previous or present diseased condition of the host."

In 1884, Brigade-Surgeon G. Bidie, then in charge of the Museum, sent to Doctor Günther some specimens of entozoa found parasitic in some of the edible bony fishes of Madras (catfishes, seir, pomfret, etc.), whereon Professor Jeffrey Bell writes:⁷ "Their prevalence, or alleged prevalence, had given rise to one of those epidemics of disquiet, which are best allayed by scientific knowledge and investigation." The specimens were forwarded for examination to Doctor Örley, of the Buda-Pest Museum, who reported that all the parasites that were sent to him were in the cystic stage of unknown species of tape-worms. The history, however, of *Anthocephalus hippoglossi* and *A. elongatus* (found in Madras horse-mackerel—*Caranx*—and cat-fishes) has been traced by no less an authority than Von Siebold, who has shown⁸ that they are the cystic stages of *Tetrarhynchus corollatus*. Now this cestode, when adult, lives only in the digestive tracts of rays

⁷ Ann. Mag. Nat. Hist., 1884, Vol. XIII, 173.

⁸ Zeitschr. f. Wiss. Zool, II, 241.

and dog-fishes; and, as we know, therefore, its two hosts, we may feel confident that man may eat fishes such as *Caranx* or *Arius* without any danger of being infested with *Anthocephalus*. "Definite knowledge," Bell concludes, "of the parasites of fishes, though by no means the first, is a most important factor in the solution of those problems which are of interest and importance not only to the zoologist, but to those that catch and sell, and those that buy and live on fish."

Masulipatam sub-division, 1892-93.—Decrease due to (a) employment of fishermen in cultivation on the early setting in of the rains; (b) floods in the Kistna river, and consequent inaccessibility from the mainland of the yards situated at the mouth of the river; (c) cholera.

Calicut sub-division, 1893-94.—Decrease in Malabar attributed to (1) some of the Cannanore fishermen, owing to a misunderstanding with the curers, taking their fish to the yards in S. Canara; (2) to a peculiar current running along the shores of Cannanore and Tellicherry, which was very unfavourable to the approach of cat-fish; (3) to a new kind of net introduced at Tellicherry, which proved a failure.

Chicacole sub-division, 1893-94.—The curers were extremely apathetic, owing to the large demand for fresh fish in the neighbourhood. A large decrease due to (1) the season being very unfavourable for fishing; (2) the emigration of some of the fishermen to Rangoon with a view to obtaining more lucrative means of livelihood; (3) some of the fishermen finding better employment on the east coast railway works. Decrease in 1896-97 on the west coast owing partly to increased demand for fresh fish, consequent on the population of the coast having been augmented by immigration from Bombay on account of the plague. Such demand necessarily means diminution of supply for curing.

1895. The Board of Revenue believes that the fishing classes all along the coast of the Presidency are much given to temporary migrations in search of lucrative employment, partly because they have less objection to travelling by sea than others, and partly because their calling as boatmen renders them handy and useful, and makes it easy for them to get good wages at the larger ports. Since 1888, from which time the Sheppard line of steamers has afforded additional facilities, and a cheap means of communication with several of the South Canara ports, young men are said to have been resorting to temporary employment in increasing numbers. The Board concurs with the Collector in considering that it

is not on account of the suppression of the use of salt earth that these migrations take place, but owing to the inducements in the way of good wages offered in Bombay.

With these prefatory remarks, I pass on to the diary of a tour of inspection of the fish-curing yards of Malabar and South Canara, undertaken in October–December, 1899. To Mr. C. M. Sherman, Assistant Commissioner, Salt and Abkari⁹ Department, who accompanied me, I gratefully tender my thanks for the manner in which he carried out the thoughtful direction of the Commissioner, the Hon: Mr. J. Thomson, that full facilities and assistance be afforded to me in inspection and investigation; that all information available be afforded, and enquiries made according to direction; and that the inconveniences of travelling be mitigated as far as possible.

To one travelling westward on the Madras Railway, the first indication, and a potent one, of arrival near the seat of the fish-curing industry is a series of malodorous whiffs emanating from the fish baskets piled up on the platform of the Tirúr Railway station. From which place a run of five miles brings one to Tanúr, where the work of inspection commenced, on October 27th, with an initial blunder; the Salt Inspector, clad in blue cloth coat and trousers, on the former of which I failed to notice the Government crown, being mistaken for the station master. A procession was formed through the long, narrow main street, consisting of the Assistant Commissioner on a bicycle, myself in a manjil or muncheel (hammock-litter), carried on the shoulders of strong palm-hatted coolies, and youthful members of the village community running behind, and keeping up a running commentary in Malayalam on the gentleman on wheels. The travellers' bungalow, which was our goal, is situated outside the town on the sandy shore, in close proximity to the fishermen's quarters and curing yard, between which a stream of swarthy coolies in single file, like processional black ants, carried bundles of salt on their heads.

⁹ "Āb-kári, the business of selling a distilling strong waters, and hence elliptically the excise upon such business. This last is the sense in which it is used by Anglo-Indians. In every district of India, the privilege of selling spirits is farmed to contractors, who manage the sale through retail shop-keepers. This is what is called the 'abkary system.' The system has often been attacked as promoting tippling, and there are strong opinions on both sides."—*Hobson-Jobson*.

Fishing operations were temporarily suspended owing to a heavy sea, with a post-cyclonic swell, which, the Hindus prognosticated, would continue until after the dévali, or feast of lights, on November 2nd. The state of the sea rendered it impossible for the boats to get through the heavy line of breakers. The boats are made of aini (wild jack—*Artocarpus hirsuta*) or mango (*Mangifera indica*) timber, and carry a mat sail. A good boat, I was told, costs from Rs. 200 to Rs. 400 according to its size, and, barring accidents, will last from twenty to thirty years. To protect the boats against the ravages of boring poochees (insects, crustaceans, and molluscs), sardine-oil is rubbed into the timber both inside and out. This oil costs from Rs. 1-8 to Rs. 6 per kerosine tin (a new measure resulting from civilisation), according to the abundance or scarcity of oil in the market. As an example of molluscan want of respect for hard timber, I have exhibited in the museum a specimen of the extremely hard *Mesua ferrea* timber from the Calicut pier, which is riddled through and through by the boring *Pholas*.

A boat's crew is composed of five men, of whom four row, when the breeze is contrary, and one steers with a wooden paddle. The boats go out from eight to ten miles, where the depth is said to be ten fathoms; a fathom being graphically represented by the span of the outstretched upper extremities (*grande envergure*). It is worthy of note that, in British seas, trawl-fishing is carried on at a distance of 80 to 100 miles from the nearest port, whereas, in the Madras Presidency, the 'deep-sea' boats only go out from 8 to 12 miles from the coast. Short, however, as is this distance, speed in reaching the shore after a catch is an advantage. For the boats (in which no provision is made for protection of the fish from the sun) are not allowed by the regulations to take salt to the fishing-grounds, from fear of smuggling. And, as is well known, decomposition sets in, in tropical climates, with terrible rapidity. He who is not possessed of strong digestive organs should steer clear of fish-curing yards and fish markets in the East.

The various kinds of net used by the Tanúr fishermen are as follows; those with coarse meshes being made of hemp, those with fine meshes of cotton:—

(a) Shark net (*valia sravuvala*). Eight long sections connected together. Mesh $6\frac{1}{2}$ ". Two wooden floats attached to each section. Heavy enough to remain vertical in the water without weights. Value Rs. 50.

(b) Net for mackerel, small cat-fishes, *Trichiurus*, etc. (cheralavala or ailavala). A cone with truncated apex. Bag at lower end about 12' long. Bamboo floats to keep bag open. Mesh $1\frac{1}{2}$ ". Attached to upper end, a net (katungani) with 7" mesh, weighted with laterite bricks, and connected to two boats by rope at each end. Value Rs. 60.

(c) Net as preceding for sardines, soles, and sundry small fishes, with $\frac{3}{8}$ " mesh. Value Rs. 100 owing to fineness of mesh.

(d) Net for seir, pomfret, big cat-fishes, etc. (vakkuvala), made in eight sections. Mesh 3". Wooden floats at frequent intervals. Stones attached to lower end. Value Rs. 40.

(e) Net for small seir and other fishes (kandádi or nuppari). Very similar to preceding, but with smaller mesh. Value Rs. 40.

The fishermen of Tanúr are, for the most part, Mukkuvan converts to Muhammadanism, or new Islámites, and will not go out fishing on Fridays. "The Mukkuvans," writes the Census Commissioner, 1891, "are the sea-fishermen of the Malabar Coast, as the Mukayans are the fishers in the rivers. The names seem to be etymologically the same, and both are, I think, connected with Canarese Mogér, all the words coming from a root meaning 'to dive.' A Mukayan is, however, socially superior to a Mukkuvan, and their customs differ. A Mukayan will not take water from a Tiyyan, but a Mukkuvan may. According to a tradition, Mukayans, Mukkuvans, and Tiyyans are immigrants from Ceylon." A few individuals at Tanúr combine, like the modern actor-manager, the functions of fishermen with those of curer. But, as a rule, the fishermen dispose of their fish to the merchant curers on fixed terms to fixed customers, to whom they look for support in the slack season—the rainy and stormy S.W. monsoon. The fishing community were sleek and well-nourished, and, to judge from the swarm of children who followed me during my inspection of the yard, are eminently fertile. One fisherman indeed, was polygynous to the extent of seven wives, each of whom had presented him with seven sons, not to mention a large consignment of daughters. On the east coast the prevalence of twins is attributed by the fishermen to the stimulating qualities of fish diet. The crowd, which accompanied me everywhere, was kept back by a peon by means of harmless demonstrations with the tail of a skate. The happy possessor of the tail of the skate *Trygon uarnak*, with its spine intact, is believed to be safe from the influence

of spells and charms, and able to face the evil eye with impunity. On the occasion of a visit to Cochin, the travellers' bungalow, a noted resort of thieves, whereat I stayed, was guarded at night by a constable armed with the rostrum (saw) of a young saw-fish (*Pristis*), with the base cut away so as to form a handle.

Fishing operations being slack, the opportunity was taken to make myself, at the outset, familiar with the machinery by which the discipline and management of a fish-curing yard are kept under control.

The rule for attendance at the yard is that "the Assistant Commissioners must be guided by their own discretion in prescribing the hours, during which yards are to be kept open. The only instructions on the subject, which the Board considers necessary to issue, are that all possible facilities should be afforded to persons who desire to resort to them." Yard officers must live within half a mile of the yard, or in the yard itself. They should be present when the night fishing boats return (*i.e.*, about 9 or 10 a.m.). They are on no account to be absent on other duty. The hours of attendance are fixed at from 7 to 11 a.m. and 2 to 6 p.m., but are modified to suit existing conditions, *e.g.*, of pressure or slackness in the yard.

The routine forms prescribed in connection with curing operations, are as follows:—

- (1) Register of fish-curers.
- (2) Tickets of admission to the yard.
- (3) Daily register of operations.
- (4) Daily register of cured fish removed.
- (5) Stock and cash register.
- (6) Daily report.
- (7) Weekly report of fish-curing operations.
- (8) Weekly register of operations in the yard.
- (9) Monthly abstract of curing operations from circles.
- (10) Monthly abstract of curing operations from subdivisions.
- (11) Annual statement of curing operations.
- (12) Statement showing the expenditure on repairs to buildings in the yard.

Permission to resort to the yard is conditional on good behaviour and the observance of departmental rules; and tickets are liable to cancellation or suspension at the discretion of the Inspector or other superior officer, in cases of misconduct. Ticket-holders, failing to resort to the yard for

a consecutive period of six months, are, unless they account to the satisfaction of the Inspector for such failure, liable to cancellation of their tickets. In the case of the death of a ticket-holder, the *primâ facie* heir of the ticket-holder will be permitted, under the original ticket, to carry on operations at the yard. As examples of punishments enforced in connection with the maintenance of the discipline and sanitary condition of a yard, the following cases may be cited:—

Suspension for one year for removal of cured sharks from the yard without the knowledge of the yard officer.

Suspension for one month for removing dry fish without its being entered in the account.

Suspension for one month for insolent behaviour to the yard-officer.

Suspension for fifteen days for keeping old brine in the shed, and keeping the shed in a dirty condition.

Suspension until further orders for not resorting to the yard.

The mild grievances of the Tanûr fishing community, submitted to me as to one in authority, were:—

(1) That the fishermen-curers are taxed Rs. 18 as fishermen, and their wives Rs. 10 as curers.

(2) That each curer has to pay Rs. 2 rent for each shed to the land-owner. (They formerly paid Rs. 5). And they want Government to acquire the yard, and become proprietors thereof. The yards in the Calicut sub-division are situated either on Government land, acquired land, or private land (*i.e.*, land not on Government waste-land leased out).

(3) That the price of salt, which was originally 12 annas per maund, has, since 1892, been 1 rupee per maund.

(4) That the drying ground is not large enough. (If it were enlarged, it would be necessary to buy up houses on one side; and, on the other side, there is a Moplah Muhammadan burial-ground.)

(5) That they are not allowed to use old brine for curing small fish, after it has been used for big fish. (The objection to such a course is that the brine, after being once used, is impure, and has an evil odour.)

The Tanûr yard is surrounded by an aloe (*Agave*) fence, which has been planted as an efficient substitute for the former bamboo fence in keeping out intruders and marauders, human, domestic, and feral. Stored in the salt shed, at

the time of my visit, were 695 bags of salt, each bag containing two maunds. The salt is sent from the salt factory at Tuticorin in bags sealed with a Government leaden seal. If the supply of salt threatens to run short owing to exceptionally large catches, it can be speedily renewed from the salt depôt at Beypore, the former terminus of the Madras Railway. In the Tanûr yard are 89 curing-sheds, constructed mainly of bamboo, arranged in a row all round a large open space, constituting the drying-ground, whereof the cleanness was beyond criticism. Within the sheds were an enormous number of prawns (*Penæus sculptilis*, Heller), stacked in piles after being sun-dried without salting. Some of the prawns, which are caught close in shore, where the water is rich in fish-guts, are salted for export to Madras, Bangalore, etc., after removal of the legs, skin, and appendages. The common edible species of prawn in Madras, Mr. J. R. Henderson informs me, are *Penæus monodon*, Fabr., and *P. indicus*, M. Edw., but several others occur, including *P. sculptilis*, which is not rare.

The prevailing fish in the yard was mackerel (*Scomber microlepidotus*), known locally as aila. After gutting, which is carried out by expert hands at the rate of about 2,000 fish per hour, the guts are thrown into the sea, or on to the waste-land near the yard, and the fish are salted in boats called pathai, or in disused dug-outs. Therein the fish are arranged in layers, each sprinkled with salt. As the curing process advances, the fish become steeped in a briny juice, which is eventually thrown into the sea, and the boat cleaned. For export, the mackerel are neatly packed in baskets, each of which contains a thousand fish. At the time of my visit, a number of baskets were ready for export by rail to Trichinopoly.

The coast-trade in exported fish is amply provided for by the service of coasting steamers, which constantly ply from port to port, and serve as an easy medium of communication with Colombo, the Clapham junction of the east. But increased railway communication, with favourable rates for the carriage of fish, and refrigerating vans, would do much to advance the up-country distribution of fish, both prime and offal. From returns supplied to me by the courtesy of the Traffic Manager of the Madras Railway, I find that the weight of salt fish consigned from the principal stations in Malabar during the years 1891 to 1898 were as follows:—



FISHING VILLAGE, CANNANORE.

Year.	Tírrur.	Tanúr.	Parpan- gadi.	Calicut.	Total.
	MDS.	MDS.	MDS.	MDS.	MDS.
1891 ...	64,040	53,045	30,631	15,348	163,064
1892 ...	44,561	39,849	31,938	15,152	131,500
1893 ...	44,484	31,974	27,446	16,820	120,724
1894 ...	43,200	28,799	31,259	14,423	117,681
1895 ...	45,825	27,203	23,653	9,211	105,892
1896 ...	47,980	34,605	32,045	11,338	125,968
1897 ...	45,255	44,104	32,909	10,501	132,769
1898 ...	50,375	30,127	24,626	8,396	108,524

The bulk of the traffic takes place between September and March, and coincides with the time at which fishing is most actively carried on. The general rate for salt fish, at owner's risk, on most railways, is a third of a pie per maund per mile. The Madras Railway rate is $\cdot 296$ of a pie, or $\cdot 037$ of a pie lower.

Drying in the Tanúr yard were considerable numbers of 'soles' (*Cynoglossus*, sp.), known all along the coast as mánthal, owing to their resemblance in shape to the young leaves of the mango tree. Big hauls of these flat-fishes are generally secured at the end of July and in August, but the present season was abnormal owing to the aberrant nature of the south-west monsoon. As will be seen from the following table of the rainfall at Calicut, the heavy rain out of season in April was followed by a great failure during the south-west monsoon:—

1899.	Total rainfall for the month.	Average rainfall for the month.
	INCHES.	INCHES.
April ..	20·34	2·86
May ..	4·64	10·34
June ..	42·33	36·28
July ..	13·04	28·39
August ..	4·35	14·90
September ..	3·03	9·01
October ..	10·05	9·93
November ..	0·11	4·21

The best hauls of soles occurred in September, as indicated by the following statistics :—

September	7	..	..	342	Maunds.
"	10	..	..	762	"
"	11	..	..	1,600	"
"	12	..	..	491	"
"	13	..	..	180	"
"	14	..	..	424	"
"	19	..	..	264	"
"	20	..	..	1,227	"
"	21	..	..	851	"
"	23	..	..	6	"
"	25	..	..	139	"
"	27	..	..	87	"
"	28	..	..	711	"

Afterwards only a few maunds or seers were caught in a day. The soles, after being incised with transverse cuts into the flesh at frequent intervals, are salted and dried, for sale especially in the Eastern taluks (sub-divisions) of Malabar, i.e., Palghát, Ernád and Walavanád.

Drying, too, in the Tanúr yard, were a few nalla mathi (good fish), by which name is known the migratory 'sardine'¹⁰ *Clupea longiceps*, of which a casual shoal had appeared some days previously, with the following results :—

October 19th—Small catch ; about a sixth of a boat-full.

" 20th—Friday. No fishing.

" 21st—238 maunds brought to the yard, and a large number sold fresh at Re. 1 per maund.

The yard statistics are, it may be noted, not an index of the total catch of fish, as only those for which salt is required are brought to the yard.

" 22nd—No shoal.

" 23rd—219 maunds brought to the yard.

The shoals came, I was told, in a direction from north to south, and the fish were caught within a mile of the shore. They were about four inches in length, and not very oily. They are said to be full-grown, and to contain oil in abundance, in December. When big shoals appear (as they last did in 1895-96), they are pursued by predacious sharks, cat-fishes, kora (*Sciæna*), etc., and a rich harvest of fish, both great and small, is gathered in: It is hard to over-estimate the

¹⁰ On the west coast *Clupea longiceps*, *Clupea fimbriata*, *Clupea lile* and *Dussumieria acuta*, said to have been preserved á l'huile, are known as sardines.

importance of the sardine, not only to the fishing community, but also to the planters, whose agents buy up the fish, and have them sun-dried on shore for the purposes of manure. And I quote, therefore, in detail the statistics of the sardine fishery throughout South Canara and Malabar, from north to south, during the three years, 1896-98.

Yard.	1896.	1897.	1898.
	Mds.	Mds.	Mds.
Hankarkotta	51	361	...
Malpe	111	167	...
Bokkapatna	4,249	4,064	43
Ullal	6,012	4,543	159
Manjeshwar	364	102	1
Kumbia	108	26	...
Kasergode	113	...	...
Bekal	1,137	1	...
Hosdrug	180	140	12
Mangalore	2,612	1,408	8
Taikadpara	226	77	...
Madai	9,003	3,823	653
Asikhal	8,419	1,033	167
Baliapatam	4,233	5,596	462
Cannanore	13,905	11,725	1,196
Tellicherry	22,390	22,305	1,573
Kurichi	2,804	5,095	99
Madakurai	2,851	2,168	18
Badagara	2,217	2,802	184
Quilandi	18,591	7,771	3,323
Elathur	8,231	4,092	535
Pudiappu	18,268	5,830	730
Calicut, North	12,093	7,644	245
Calicut, South	6,538	2,112	180
Beypore, North	5,825	858	326
Beypore, South	6,467	4,882	450
Parpangadi	24,935	19,664	3,243
Tanúr	78,566	55,096	7,894
Paravannah	7,601	5,780	511
Kuttai	17,040	5,935	873
Ponnani	20,681	12,269	132
Puthu Ponnani	11,466	5,433	255
Veliyangode	6,439	3,397	268
Palapatti	8,339	4,266	388
Edakashiyur	11,324	6,697	230
Chowghat	14,562	7,833	571
Blangud	7,363	5,762	188
Vadanapalli	15,180	3,298	666
Mannalankannu	6,733	3,393	244
Kurikuzhi	9,323	9,018	2,498
Bemballur	86	2,233	313
Total ...	387,295	253,640	28,702

Accepting the figures as an approximation, and leaving seers out of account, we gather from the above table the following significant information, that, whereas in 1896 the total catches of sardines were 387,300 maunds, they had shrunk to 253,600 maunds in 1897, and dwindled away to 31,000 maunds in 1898. It is worthy of note that, of the 387,300 maunds recorded for 1896, no less than 103,550 maunds were caught at the Tanúr yard and its near neighbour Parpangadi.

For the accompanying statistics (Table III) relating to the sardine fishery, which show clearly the economic importance thereof, I am indebted to Mr. Morrison, Calicut Agent for Messrs. Arbuthnot & Co., who there possess a manure factory. Mr. McFarlan, Agent for Messrs. Arbuthnot & Co., has also kindly sent me the following statement of despatches of whole sun-dried sardines sent by coast agents from Mangalore to the coffee plantations:—

Year.		Tons.	Year.		Tons.
1890	..	119	1895	..	515
1891	..	87	1896	..	425
1892	..	125	1897	..	169
1893	..	427	1898	..	2
1894	..	424			

TABLE III.

Sardine Statistics.

Sun-dried Fish.			Fresh Fish.		
Season.	Tons.	Average price per ton.	Season.	Tons.	Average price per ton.
1890-91 ...	34	Rs. 25	1890-91 ...	165	Rs. 7
1891-92 ...	84	25	1891-92 ...	75	7
1892-93 ...	145	25-30	1892-93 ...	158	7
1893-94 ...	1,443	25-30	1893-94 ...	198	6-8
1894-95 ...	1,764	25-30	1894-95 ...	42	12
1895-96 ...	1,625	25-30	1895-96 ...	166	7
1896-99 ...	<i>Nil</i>	...	1896-97 ...	18	12-14
...	...	...	1897-98 ...	24	12-14

In his report on the fish-census of the Ponnani Circle, taken during the first seven days of December, 1899, Mr. R. M. Brookes, Inspector, Salt Department, writes to the effect that "the week was rather unfavourable for fishing, owing to the easterly winds along the Palghát gap, which prevented the fishing classes from going out to sea for catching the larger classes of fish. Sardines, which are the fish most appreciated by the fish-eating classes in these parts, and which had altogether disappeared from the coast for the last few years, were caught here and there, and, at some stations, in pretty large quantities. In former years, this time of year was just the season for sardines as well as mackerel; and, judging from the fact that they were not caught in any two adjacent stations alike on the same day, I am in a position to say that the migration has not been complete." The catches of sardines, from north to south, during the census week are recorded in the subjoined table. At Tanúr, where the largest hauls were secured, the number of boats engaged in the fishery ranged between 196 and 117, with a daily average of 145. In addition to the sardines, the following big fishes are entered in the returns of the Tanúr yard during the census week :—

	No.
Mackerel	1,733,796
Kora	28,300
Sharks	988
Cat-fish	478
Skates	351
Seir	111

Number of Sardines caught in the Ponnani Circle, December 1st to 7th, 1899.

—	First.	Second.	Third.	Fourth.	Fifth.	Sixth.	Seventh.
Beypore	...	5,000	...	...	...	20,000	15,000
Katalundi	...	8,530	28,000	...	...	28,000	25,000
Perpangadi	...	3,700	296,000	16,000	56,000	54,000	30,600
Tanūr	...	6,100	633,618	68,310	1,117,660	118,600	...
Paravannah	...	131,210	6,360	54,650	...	18,498	12,760
Kutai	26,708	86,000	...	...	8,000	...	...
Ponnani	...	12,800	16,000	31,500	8,000	...	...
Putu-Ponnani	108,257	2,360	175	650	2,098
Velankode	195,826	7,026	...	...	760
Palapatty
Manlakannu	...	49,550	...	48,000	...	...	...
Edakkasiyur	...	6,480	...	3,800	...	...	...
Blangad	...	1,500	...	1,050	...	...	...
Chavakkat
Vedampally
Kurikkushi
Bamballur	2,500	...
Cochin	5,000	...	5,000

Hundreds of tons of fish-oil are said to have been annually exported from Cochin in former years. And I find that the average export thereof in the five years 1856 to 1861 was 19,630 cwt. The oil trade is, however, reported to be decreasing year by year. In some seasons the sardines arrive off the coast in enormous numbers, or, for several years consecutively, they may be present only in quantities sufficient for purposes of food. The result of this irregularity is that one very important element of success in commercial undertakings—regular supply—is wanting. In some years large shoals of sardines appear, and suddenly disappear. Contracts for the supply of oil are made on the arrival of the fishes, and, in the event of their disappearance, the contractor loses heavily. The natives of Cochin say that formerly the sardines always arrived regularly, and remained throughout the season. And the fishermen's belief is that they are at the present day frightened away by the numerous steamers which call at Cochin, and retire in search of a less disturbed spot. In addition to steam-boat traffic, noises in boats (*vide* *tattu vala*, p. 133), ringing church bells, artillery practice, the erection of lighthouses, gutting fish at sea, using fish as manure, burning kelp, and the wickedness of the people, have been charged with being responsible for a falling off of the fish supply. But, as Mr. Fryer naively remarks,¹¹ "of these alleged causes, only the last, it is to be feared, has been, and is likely to be, a permanent factor in the case."

The preparation of the evil-smelling fish-oil is carried out in large iron cauldrons, in which the fish are boiled with a little water. The oil, as it exudes, rises to the surface, is strained through cloth, and stored in barrels. The residue in the cauldrons is preserved, and utilised as manure for coconut gardens, paddy (rice) fields, etc. A rougher, and cheaper process of oil extraction, by which the cost of cauldrons and firewood was saved, has practically been put a stop to as being an offensive trade. This process consisted simply in putting the fishes into a canoe, and exposing them to the influence of the sun until decomposition set in. The oil then rose to the surface, and was removed with a scoop. By this crude process a comparatively small quantity of the oil was extracted. A portion of the manufactured oil is consumed locally by boat-owners for smearing their boats, so as to preserve the wood and coir rope (made from the fibre of the

¹¹ Fisheries Exhibition, London, 1863, Prize Essay.

coconut husk), with which the timbers are stitched together. But the bulk is exported to Europe and some Indian ports. The natives believe that the oil returns from Europe, masquerading in the guise of cod-liver oil.

October 28th.—By train to Calicut, the capital town of Malabar (or Ma'bar, to give it its mediæval name), whence are exported coir yarn, coconuts, pepper, nux vomica seeds, ginger, coffee, chillies, Indian 'rose wood' (*Dalbergia latifolia*), fish, etc. For breakfast at the hotel oysters from the Ellatūr river, prawns, whiting, soles and salted roe. Mackerel, though good eating when quite fresh, soon taints, and does not find favour with the European community. Pickled with vinegar, it is, however, quite excellent.

On October 30th the unfavourable conditions for fishing had ceased, and it was possible to go out with the hand-dredge without fear of being drowned, swamped, or drenched. At high-tide mark, where I had drawn a blank on the two previous days, I found a very large number of shells of the edible, and pearl-bearing *Mytilus viridis*, cast on shore from some neighbouring bank, over a limited area of a quarter of a mile, extending from the French flag-staff to the Malabar club.¹³ Marine algæ (sea-weeds), which form so conspicuous a feature of the British coast after a heavy gale, were marked by their absence. Far more interesting were my walks on the Calicut beach in 1894, whereon the following notes were made at the time. "Conspicuous by their abundance were the *Siphonophora Velella* and *Porpita* (Portuguese-man-of-war); the shells of the mollusc *Mytilus viridis*; the young of the cirrhiped *Balanus tintinnabulum*; the carapaces of the Crustacean *Matuta miersii*; and the burrowing Crustacean *Hippa asiatica*, swarms of which are destroyed by fishermen with each cast of their nets, and heaped up on shore. *Hippa*, which lies buried between tide-marks on the Calicut beach, is collected by digging with the hands, roasted with medicinal herbs, and applied as a fomentation to sore legs. Prevalent on the beach were sharks' vertebræ, teeth, and horny purses

¹³ The French have a *loge* in Calicut 'occupée par un gardien.' The *loge* consists of six acres on the sea-shore about half a mile north of the Calicut light-house, and adjoins the old district jail site. The exact facts connected with the foundation of the French factory are involved in doubt. Beyond the fact that the landed property and houses are untaxed, there is nothing to distinguish the *loge* from the rest of Calicut. It is doubtful what rights the French Government has in it."—Logan, *Manual of Malabar*.

(egg-cases) attached to drift coir fibre; worn madreporarian coral fragments, doubtless carried by currents from the distant Laccadive Islands; and a pennatulid (*Cavernularia malabarica* sp.n. Fowler). This pennatulid was being cast ashore in large numbers at the time of a visit to Calicut during the south-west monsoon, 1893, with the object of ascertaining whether Calicut could serve as a source of supply of cowry shells (*Cypræa moneta*) for the Belgian Congo State.¹⁸ In India until late in the present century, about 5,120 cowries went to the rupee.

Mr. Sherman tells me that, during his inspection of the fish yards between Ponnáni and Beypore in August and September, 1899, some of the species of fish, which travel up the rivers, were lying dead along the shore at Ellatur, north of Calicut. These included the nair fish (*Lates calcarifer*), kora (*Sciaen*a, sp.), and the bá-mín (*Polynemus tetradactylus*), which gives sport to the trolling angler. Mr. Marsh, Assistant Engineer of the new Calicut-Cannanore Railway Extension) informed Mr. Sherman that hundreds of dead fish had been seen daily passing out with the tide. The theory of the fishermen was that the mortality was caused by the poisonous water lying stagnant in the rivers and backwaters owing to the failure of the monsoon rain. The chief time for coir manufacture, by steeping the coconuts in water, is in August and September. And it is possible, as Mr. Sherman suggests, that, owing to the failure of the normal floods and freshes, the upper reaches became contaminated, with the result that the fishes which came up with the tide were poisoned before their return to the sea.

In connection with fish mortality, Sub-Lieutenant E. J. Headlam, of the Marine Survey Steamer 'Investigator,' has been good enough to supply me with the following note concerning a curious mortality among fishes, which was noticed, from December 19th to 23rd, 1899, off the South Canara coast over an area of several square miles to the northward of Kundapúr. "The fish" he writes, "which were seen dead in thousands, were of all descriptions and sizes, from those only a few inches long to some of four or five feet. From the appearance of many, it was evident that the mortality was amongst both the surface fish and those which live only at the bottom, as several were of the kind and appearance of those brought up in the net when dredging.

¹⁸ The supply was eventually arranged for by a Bombay firm.

The stomachs of all were more or less distended, and the smell was very powerful and nauseating, having a decidedly sulphurous odour. The area affected extended from immediately north of the rocky reef which runs out from the north of Kundapur in lat. $13^{\circ}38\frac{1}{2}$ north and long. $74^{\circ}40'$ east approximately, along the coast as far north as the village of Kirmunjeshwar in lat. $13^{\circ}46'$ north and long. $74^{\circ}37\frac{1}{2}$ east approximately; and extended about four miles out to sea, covering roughly an area of 32 square miles. The water ran out regularly as to depth from the shore to nine fathoms, the bottom being chiefly soft mud. In the southern half of the area are several large rocks. The fish were first noticed on December 19th, and on the 21st there was, over the affected area, hardly a square yard without at least one dead fish floating in it. And the whole of the beach was strewn with the dead bodies. On the 22nd considerably less were noticed, and by the 24th they had all disappeared." A possible solution of the cause of death is to be found in an incident, which was observed by Mr. Crawford, a commercial agent at Alleppy. "A number of years ago," he writes,¹⁴ "I brought to the notice of General Cullen that the perfect smoothness of the water in the roads and at the beach at Alleppy, was attributable, not to the softness of the mud at the bottom, so much as to the existence of a subterranean passage or stream, or a succession of them, which, communicating with some of the rivers inland and backwaters, become more active after heavy rains, particularly at the commencement of the monsoon, than in the dry season, in carrying off the accumulated water, and with it vast quantities of soft mud. . . . Due west of the flagstaff, and for several miles south, but not north of that, the beach will, after or during the rains, suddenly subside, leaving a long tract of fissure varying from 40 to 100 or 120 yards in length. The subsidence is not so quick at first, but, when the cone of mud once gets above the water, the fall is as much as 5 feet in some instances, when the cone bursts, throwing up immense quantities of soft soapy mud, and blue mud of considerable consistence, in the form of boulders, with fresh water, debris of vegetable matter, decayed, or, in some instances, green and fresh. These bubbles are not confined to the seaboard, but are, I am inclined to think, both more active and numerous

¹⁴ Rec. Geol. Surv. Ind., Vol. XVII, 1884, p. 18—*vide* also Lake Rec. Geol. Surv. Vol. XXIII, 1890, p. 41.



FISHING BOAT, MANGALORE.

in the bed, of the roads with the flagstaff bearing from east-north-east to the south, until it bears north-east by north or even south of that. About 5 years ago, for about four miles down the coast, and from the beach out to sea for a mile and a half, the sea was nothing but liquid mud. The fish died, and, as these cones raised their heads above the surrounding mud, they would occasionally turn over a dead porpoise, and numerous other fish. ¹⁵ The boatmen had considerable difficulty in urging their canoes through this, to get outside of it. The beach and roads presented then a singular appearance—nothing to be seen but these miniature volcanoes, some silent, others active, perfect stillness of all around the ships in the roads, as if in some dock, with a heavy sea breaking at seven fathoms outside."

The District Medical Officer, Malabar, recently sent me specimens of *Saccobranthus fossilis* for identification. "This fish," he writes, "is supposed to be poisonous, as, when a person is bitten by one of them, gangrene gradually takes place; and, if the part is not removed above the nearest joint, it slowly and steadily goes on spreading upwards. During the last three years, I have performed about eight amputations for the result of these bites; and, in one neglected case, I had to remove the arm above the elbow joint. The fish is supposed to be a fresh-water one, and, when caught by the fishermen, is avoided; and, rather than touch it, they chop it in bits." In his *Fishes of India* Day states that "wounds from the pectoral spine of this fish are dreaded in India, as they are reputed to be very poisonous, even occasioning tetanus. As soon as captured, the offensive spine is broken off by blows with a stake. Consequently it is difficult to procure a large and perfect specimen. Fishermen dread it so much, that they would prefer cutting the meshes of their nets, and allowing it to escape, than endeavour to remove it uninjured. As food, the flesh is esteemed for its invigorating qualities, and tanks are frequently stocked with them during the rainy season." It is called in Tamil thélloo (scorpion), and in Malayalam kari meen (black fish).

October 30th.—By boat at night from Ellatūr to Badagara, the chief town of the Kurumbanád taluk, where, as the

¹⁵ A letter was written some years ago to a local newspaper, complaining that I have a porpoise exhibited in the mammal gallery, instead of with the "other fishes." No defence is necessary, except for the benefit of those who are not aware that whales and porpoises belong to the Mammalia, and not to the Pisces.

newspaper hath it, I spent a day "dissecting and examining the vital organs of the catches brought ashore." A visit was paid to the weekly market, being held outside the travellers' bungalow, whereat were congregated the vendors of betel,¹⁶ sarsaparilla, chillies, chunam, mats, and chatties (earthen pots) with thumb-nail and finger tip impressions as a primitive form of ornamentation. Also displayed for sale were coir yarn, cocoanuts for fuel, large-fruited plantains (nenthrai kaia), lotus flowers (*Nymphaea*), of which the stamens are used medicinally, various medicinal herbs, and vegetables. Conspicuous by their bright colour were the red flowers of *Ixora coccinea* (chekki pu), used for offering at shrines; and, among other economic products, I noticed some leaves (etchil thali) used for rubbing over the cocoanut spathes to increase the yield of sap (toddy, when fermented), and for removing superfluous oil from the hair. The usual cheap looking glasses, and beads and tawdry jewelry made in Europe, which are fast replacing the indigenous peasant jewelry, were much in evidence. In the market swarmed the inhabitants, made up largely of 'Tiyans with heavy ornaments in the dilated ear-lobes, Cherumans, dark-skinned, and curly-haired, with a mass of brass ornaments round the neck and in the ears, and Moplabs (or Mappilas). The prevailing white cotton clothing of the native throng was a relief to one accustomed, in his every-day life, to see Tamil women clad in gaudy piece-goods, barbarous alike in colour and design.

At the time of my afternoon visit to the fish yard, the boats were out fishing not far from the shore, and the presence of a shoal was indicated by piscivorous gulls. On the beach a merry throng, equipped with baskets, awaited the return of the boats, and vendors of cakes and sweet-meats did a brisk ready-money business. Trotting along to the fish-yard were men in pairs, with a bamboo pole supported on the shoulders, and hanging therefrom, not a gigantic bundle of grapes, but seir and cat-fishes in rope crates or baskets. Seir are caught either with a net, or by means of a bar provided with 'tangles' and a row of hooks baited with mackerel or sardine heads. One man was noticed on the shore with sixty nalla mathi (*Chupea longiceps*)

¹⁶ "The leaf of *Piper Betle*, chewed with the dried areca leaf (which is thence improperly called betel-nut, a mistake as old as Fryer, 1678), chunam, etc., by the natives of India."—*Hobson Johnson*.

on a string, which he had purchased for a third of an anna--the cheap price of an evening meal for a family of three, with which the Lipton restaurant could not compete. At Badagara the larger boats (which cost Rs. 500) are manned by eight men. For a pair of boats a complete battery of nets costs, I was told, Rs. 1,000. A boat is capable of holding about 25,000 sardines and 10,000 mackerel. Sardines realise from 1 to 10 annas per thousand, and mackerel from 8 annas to Rs. 1-4 per 1,000, according to the catch. Fish are conveyed from Badagara to the distant Wynád by runners, with changes at fixed stages *en route*.

On the method of fishing and nets used at Badagara, I may quote verbatim a note which was prepared for me "When shoals of sardines appear near the shore, cast-nets, with small mesh and sounding bells, are generally used. The boats employed are small ones, and the rowers are generally one or two in number, excluding the man who handles the net. The boat remains almost stationary when the net is spread. The man who works the net must stand, and should be very careful in maintaining his equilibrium during ebb and flow of the tide, which will frequently occur when the boats are within two miles of the shore. The cast-nets are made of very fine fibre, and present a circular surface, when they are horizontally spread. It acquires a conical shape by the weight of the leaden bells attached to the ends of the nets, and they are all brought to a point by means of a cord passing through the bells. It then presents a double cone, with the bases facing each other. The shoals caught find no egress.

"The nets most generally used are the odam nets. They are made of fine threads of cotton with $\frac{3}{8}$ " mesh. Two boats should be employed in using these nets, and the ends are attached to one side of each boat. To preserve the net from being torn by the weight of heavy shoals or by big fishes, coir ropes interwoven with big meshes are spread below the odam net. After the nets are attached to the ends of each boat, the boats separate themselves as long as the length of the net would allow, and they are rowed in the direction of the free ends of the boats. After some time, the two boats meet, and the contents of the net are emptied by raising the two ends of the nets. They are again lowered, and the same process is continued till the shoals disappear, or till the boats are filled. Only deep-sea boats are employed

in using these nets, and they are rowed with four or eight oars.

"There exists no arrangement, in the case of small fishes, between the person who first sees the shoal and others who take advantage of it. It is only in the case of big and valuable fishes that some rules prevail. The person who first sees the shoal makes a signal by raising his oar, and follows the shoal until boats arrive with nets. When they come in large numbers, they are not to spread their nets without his permission; and only the man, whom he selects, is allowed to spread the net. And he generally gets half, if he possesses such nets as are employed in catching that particular kind of fish; and a boat-ful of fishes in other cases, when the shoals are enormous. The persons who are not selected are at liberty to spread their nets far away from the chosen boats, and are not obliged to give up any share, if they are so fortunate as to obtain anything by a change of course of the shoals. There is a strong arrangement between the fishermen that they should not spread their nets without the permission of the signaller; and, if they cannot come to terms with him, they lose the opportunity."

Other nets used are—

- (1) Kandati vala, for seir, kora, pomfret, small sharks, etc. Fibre, 2 $\frac{1}{4}$ " mesh.
- (2) Odu vala, for big fishes. Fibre, 3" mesh.
- (3) Nariyam vala, for big fishes. Fibre, 4" mesh.
- (4) Shark and skate vala. Fibre, 7" mesh.
- (5) Mathi vala, for sardines. Cotton, 1" mesh.
- (6) Veechil vala, for smaller fishes, *e.g.*, sardines, mackerel, soles, mullan (*Equula*), etc. Fibre, $\frac{1}{2}$ " mesh.
- (7) Veechil mathivala, for sardines. Cotton, 1" mesh.
- (8) Chala vala or thattu vala (tapping net). Cotton, 1" mesh.
- (9) Vaku vala, for cat-fish, kora, and other big fish. Fibre, $\frac{1}{2}$ " mesh.
- (10) Kora vala, for kora. Fibre, $\frac{3}{8}$ " mesh.

At the entrance to the Badagara fish-yard we were received by a guardian peon, carrying a long wand of office. The yard, situated on the open sand, close to a big Muhammadan burial-ground with laterite tomb-stones, was deserted save for one man, who was busy salting split cat-fishes. From the uterus of a gravid female the developing embryos were removed for my edification. The eggs of the cat-fish are boiled with salt, and eaten. Concerning the breeding

habits of the genus *Arius*, Day writes as follows: * " The breeding of these fishes is peculiar, and deserves attention. The eggs of *Arius* are large, averaging about 0.5 to 0.6 of an inch in diameter, and I have found many males of the genus with from 15 to 20 eggs in their mouths. Some of these eggs were in an early stage of development, others nearly ready to be hatched; while, in the mouth of one specimen, was a hatched fry having the yolk-bag still adherent. The eggs filled the cavity of the mouth, and extended far back to the branchiæ. Whether the male carries about these eggs in his mouth, or only removes them, when danger is imminent, from some spot where he is guarding them, is questionable; but, in none of the specimens which I examined, did I find a trace of food in the males which had been engaged in this interesting occupation." The double uterine cavities of a female *Arius*, examined by me, contained 56 and 75 ova respectively, with a diameter of about 1.3 cm.

The fishermen at Badagara are nearly all Mukkuvans. The ticket-holders in the yard, which is private property, are all (29) Moplahs. The Moplahs are, it may be noted, traders on the Malabar Coast, and cultivators in the interior; and, in both capacities, are industrious, successful, and prosperous. They all follow Muhammadanism, and their numerical strength is recruited from the lower classes of Hindus, who, by conversion, gain a distinct rise in the social scale.

A deputation of fishermen waited on me, whereof the principal spokesman was a youthful Mukkuvan, who had entered the lists of higher education. The main grievance, as expressed to me, was that the Mukkuvans are the hereditary fishermen, and formerly the Moplahs were only the purchasers of fish. A few years ago, the Moplahs started as fishermen on their own account, with small boats and *thattu vala* (tapping nets), in using which the nets, with strips of cocoanut leaves tied on to the ropes, are spread, and the sides of the boats beaten with sticks and staves, to drive the fish into the net. To quote a note submitted to me: "There is a net called *chala vala* or *thattu vala*, which is commonly used in catching *ila*. The special feature of this net is that the meshes are somewhat larger than those of the *odam vala*, so as to allow the first portion of the *ila* to pass through, but not the whole organ. When they find shoals of *ila*, the Mappilla fishermen surround the shoals with nets, and make

* Faun Brit. Ind. Fishes, 1889.

a great noise by beating the boats. And the fishes are frightened, and try to rush through the meshes of the nets, and then are caught, and incapable of retracing their steps. The noise made extends to a great distance, and consequently the other shoals go to the interior of the sea, and do not resort to the shore or near it. The use of this net not only prevents shoals of smaller fish from resorting to the shore, but also is a cause of the disappearance of the bigger and valuable varieties of fish, which chase and live upon the smaller ones. This net has been in use for the last five or six years, and there has been decrease in the catch each year. The fishermen request that Government should interfere in the use of these nets, and the method of catching."

The deputation ingenuously attributed the undoubted fact that catches of mackerel have been well maintained since the introduction of the thattu vala, while those of sardines have decreased, to the former being a bold fish, and not frightened by the tapping. If, they said, the thattu vala was prohibited, big, but nervous, fish, *e.g.*, cat-fish, kora, seir, etc., would come in after the mackerel, whereas at present they are frightened away, and remain in deep water. The day before they had detected a big shoal of cat-fish six miles out at sea, and quarrelled as to who first discovered it, and was entitled to the privileges due to him. While they were still quarrelling, the shoal went off, and was lost. A veteran fisherman put the real grievance of his brethren in a nut-shell. In old days, he stated, they used salt-earth for curing fishes. When the fish-curing yards were started, and Government salt was issued, the Mukkuvans thought that they were going to be heavily taxed by the Sircar (Government). They did not understand exactly what was going to happen, and were suspicious. The result was that they would have nothing to do with the curing yards. The use of salt-earth was stopped on the establishment of the issue of Government salt, and some of the fishermen were convicted for illegal use thereof. They thought that, if they held out, they would be allowed to use salt-earth as formerly. Meanwhile the Moplaha, being more wide-awake, than the Mukkuvans, took advantage of the opportunity (in 1884), and erected yards, whereof they are still in complete possession.

November 1st.—By express pony transit to Tellicherry, with a halt *en route* to inspect the small petty-officer's fish-yard at Madakarai. The ticket-holders, of whom six were Mukkuvans and nine Moplaha, were working side by side in apparent amity. A few decapitated sardines, and a fair

number of mackerel were being cured in tubs made of mango wood, or drying in the sun beneath nets, to keep off crows, kites, and other predaceous birds. Stacked in the sheds were some big sharks' fins, which are sold to Tellicherry merchants for export to Bombay, and sharks' flesh and cat-fish ready for shipment to Colombo. The brief inspection concluded, a visit was paid to a Malabar civet-cat (*Viverra civettina*), the property of a Moplah, kept in a cage for the sake of its dung, which is sold to native doctors at the rate of As. 3-4 per panam (= 4 annas weight). The dung of this animal is impregnated with the secretion of the anal glands. And in Southern India, Waring informs us "¹⁷ the unctuous odorous secretion of this animal is much employed by the native practitioners under the name of kusturi. In Travancore there was, and probably is still, an establishment, kept up at the expense of Government, in which these animals were kept and reared for the sake of their secretion, which is used for perfumery as well as for medicinal purposes (stimulant and aphrodisiac)."

Between Madakarai and Tellicherry is the French Settlement of Mahé, picturesquely situated close to the river-mouth. The outward and visible signs of French occupation were the tricolour flag flying over the house of the Chef de Service, and notice-boards, *e.g.*, licence générale, école évangélique, services financiers, etc. Round Mahé are several customs chowkies, with a preventive establishment for guarding the frontier against the smuggling of dutiable goods, such as liquor, arms, ammunition, opium and salt.

At Tellicherry the club dinner-table was tastefully decorated with the counterfeit resemblance of pomfret in coloured rice-grains of many colours. As luxuries may be mentioned big 'soles,' sardines served, like cat's meat, on a stick, devilled oysters, and tamarind prawns eaten as a pickle with curry. The best tamarind fish is obtained from the seir and nair fish (*Lates calcarifer*). In the ordinary method of preparation, the fish is boiled, and, after removal of the bones, cut in thick slices, highly spiced, left to soak, and packed in a jar. But the following account of a new and improved process, now being carried out at Cochin, has been sent to me by Mr. Sherman. Fish of all sizes can be cured, but, for the Colombo market, mackerel are preferred. The fish are not slit open, but neatly gutted by extracting the entrails through the gill-opening. They are then carefully washed,

¹⁷ *Pharmacopœia of India, 1865.*

and packed, with alternate layers of salt, in big casks, which are procured locally, and sold in Colombo with the fish. To each maund of fish about 7 lbs. of tamarind fruit (govakapully) are used. This is obtainable locally, but of poor quality, so the curer prefers purchasing in Colombo, where it costs him Rs. 4 per cwt. The casks are neatly made of the timber of the silk cotton-tree (*Bombax malabaricum*), and fitted with a bung and spigot. They are stored on end, and filled to the full. The fish is allowed to soak and pickle for four days, and the brine is then drawn off from the tap, which is about a foot from the bottom, and thus leaves just enough brine to keep the whole cask moist when closed. Under this new system 1,658 maunds 5 seers of mackerel with 375·7 maunds of salt are used, or 18·6 lbs. per maund against 12·5 lbs. used in the usual west coast method of curing. The curer informed Mr. Sherman that he had shipped 75 cases of fish to Colombo, where they realised, with the cask, Rs. 50 (each cask holds about 5,000 mackerel). The duty amounts to Rs. 6 per cask, and Rs. 2-12 are paid for freight to Colombo.

The Native and Eurasian youths of Tellicherry are, I was glad to see, keen cricketers. But, in the interests of the game, I enter a protest against a youthful batsman who was sharing a cigarette with point and the wicket-keeper, and handing his cheap smoke to the latter before starting for a run.

In the fishing village, situated at the extreme south of the town, as I passed through it on the way to the fish-yard, women and children were busy spinning cotton thread, and repairing nets. Great destruction of the nets is effected by sharks, which, when seizing their helpless prey caught in the toils of a net, devour not only the fish, but also the portion of the net wherein they are imprisoned. Only a few days previously, on the occasion of a big catch of seir, fifteen nets had been thus more or less badly damaged.

Outside the yard seer, cat-fishes, and other big fishes were being cut up with a hatchet prior to curing. The number of ticket-holders at the Tellicherry yard was 100, of whom 25 were Moplahs, 9 Mukkuvan males, and 66 Mukkuvan females, who attend to the curing while their husbands are away at the fishing ground. Disputes between the two communities are, I was told, rare. Each ticket-holder is responsible for the cleanly condition of the drying-ground in front of his shed. The yard is situated within municipal

limits, and the drying of sardines on the sea-shore for manure is forbidden on sanitary grounds. These fish, when in abundance, have therefore to be sold fresh for local consumption, or salted in the yard. For, by departmental rule, no fish is allowed to be dried in the yard, which has not previously been salted with salt purchased in the yard. The yard is at present washed, and the protecting fence damaged by the heavy seas of the south-west monsoon, which break in the yard; and the yard is, I understand, to be thrown back on the land side.

Drying in the yard, amid an expectant crowd of crows and pariah kites, seated on the fence ready to carry off an unguarded morsel, were chala mathi (*Clupea fimbriata*) from a recent shoal (noted as being 'fatty'), of which 82 maunds were brought to the yard, and young (quite recently born) sharks (*Carcharias*), as well as the back-bones, gills, heads, and flesh of larger sharks. The fins are sold for local consumption, or exported to China *via* Bombay. ¹⁸ Sharks' livers are sold in the market for food. Such fish as remain unsold in the fish-market at the end of the day are brought to the yard for curing. In process of drying was the product of recent good hauls of mánthal, caught in nets close in shore, or, more simply, with the prehensile toe. Drying, too, without previous salting, were the sounds or maws of kora and cat-fishes, which are shipped, for the preparation of isinglass, to China and Europe. The price thereof ranges from 2 to 6 pies when fresh, and from 3 pies upwards after drying, according to the state of the market. The various fishes curing in the sheds were soaking in tubs made of mango, ben-tek (*Lagerstræmia lanceolata*), and deal-wood. Of which deal is said to last the longest time. A remote effect of the war in South Africa, felt at Tellicherry, was that one merchant had fish-sounds to the value of Rs. 8,000 awaiting shipment, as the coasting service was dislocated by the employment of the coasting steamers as transports.

The following table shows the total quantities of fish, and of mackerel and sardines, cured at Tellicherry during the five years 1894-1899:—

¹⁸ "I have to come down from the regions of high finance to grovel among fish-maws and shark fins; but these articles will bring me in sufficient revenue to pay for the salary of a High Court Judge for half a year."—Speech by the Finance Minister to the Imperial Legislative Council, March, 1894.

—					Total.	Sardines.	Mackerel.
					Mds.	Mds.	Mds.
1894-95	...	...	...	...	81,228	11,469	8,380
1895-96	...	...	...	...	85,314	22,330	17,950
1896-97	...	...	...	...	79,015	22,305	5,055
1897-98	...	...	...	...	68,551	1,578	23,794
1898-99	...	...	...	...	53,639	177	135

Big fish, with the exception of seir, had not been coming in, during the present year, in large quantities. It is difficult to give an exact statement of the price of fish, as this naturally depends on demand, size, etc. But the following are the approximate values of some of the more important fishes :—

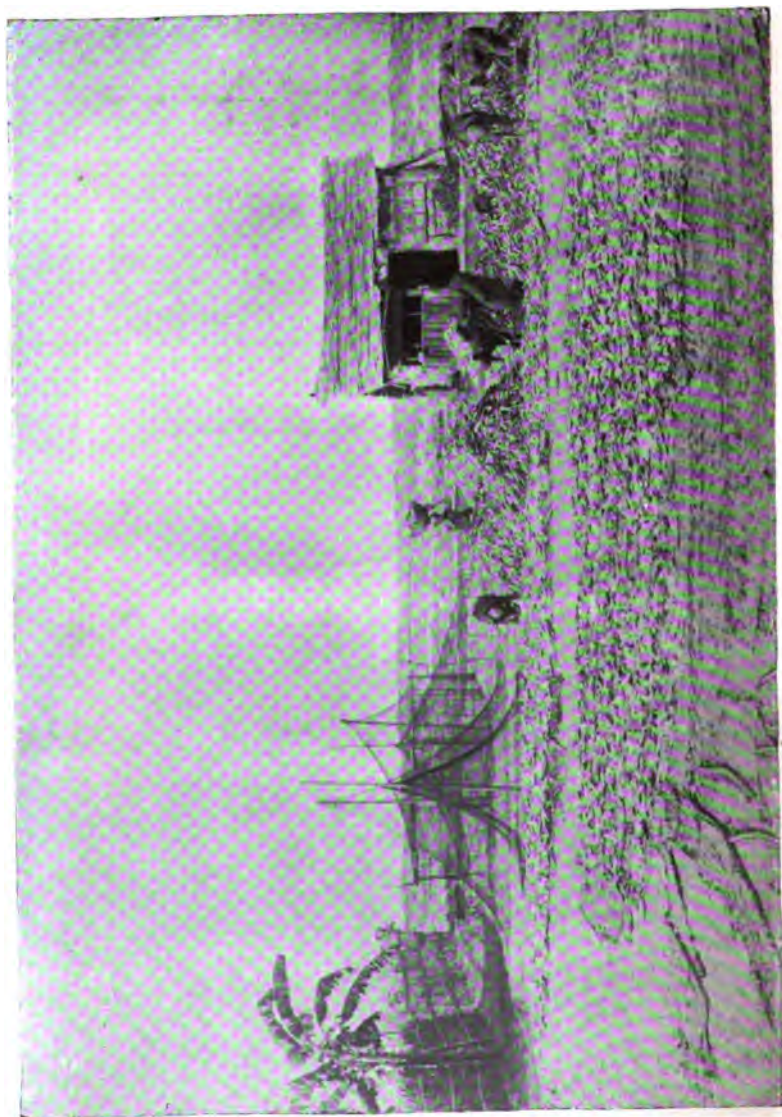
(a) *Fresh.*

Shark	As. 2 to Rs. 20 each.
Skate	As. 2 to Rs. 2 „
Cat-fish.. ..	Rs. 10 to Rs. 15 per 100.
Seer	Rs. 25 to Rs. 40 „
Kora	Rs. 40 to Rs. 120 „
Pala-meen ..	Rs. 40 per 100.
Mezhu-meen ..	Rs. 50 „

(b) *Salted.*

Shark	As. 3 to Rs. 25 each.
Skate	As. 3 to Rs. 3 „
Cat-fish	Rs. 12 to Rs. 17 per 100.
Seer	Rs. 27 to Rs. 42 „
Kora	Rs. 50 to Rs. 180 „
Pala-meen ..	Rs. 42 to Rs. 45 „
Mezhu-meen ..	Rs. 54 to Rs. 56 „
Pomfret	Rs. 7 to Rs. 8 „

A deputation of fishermen waited on me, headed by a Stalwart Mukkuvan, with the lobes of his ears distended with gold ornaments, and, as an understudy, a Moplal, who explained the mechanism of the nets in dumb show with the aid of his voluminous body-cloth. When interviewing natives, for anthropological or other purposes, through the medium of an interpreter, I am always glad to see them indulge in pantomime, as it is a guarantee that they are graphically describing what they have actually seen. And my memory recalls an occasion, on which a certain tribe were acting for my instruction the ceremonial observed at a funeral. The play broke down, as no one would undertake the leading rôle of corpse.



FISH-YARD, MANGALORE.

The main grievance of the fishermen at Tellicherry, as at Badagara, was in connection with the much-abused thattu vala, introduced, as I was informed, from Chowghát and Ponnani, by the poorer classes of Moplahs and Mukkuvans, who cannot afford big nets. The offending net, it appears, is used by about 40 out of the 200 boats, which make up the Tellicherry fishing fleet. But I will let the fishermen ventilate their grievance in their own language, as set forth in a petition to the Collector (chief magistrate) of Malabar, which is an interesting thesis on the fish industry.

"From time immemorial our means of livelihood has been fishing. We follow the old and established method of fishing prescribed by our ancestors. In good old days we were having a pretty good draught of the several kinds of fishes, such as kora, etta (cat-fish), azakoorá (seir), avoli (pomfret), chiravu (shark), etc., especially mackerel and sardine, colloquially known as kudumbam pularthi, or that which gives plenty and prosperity among the families. At the time of scarcity it is not always possible for the extremely poor people to buy and eat them. But, whenever there is a considerable quantity of fish, rich men among the fish-curers, who can afford to buy them, do so, and it is distributed among the poor classes for getting it cured, and for this they are 'enumerated' either in kind or in cash. The dry fish is afterwards sent to different places, such as Ceylon, Mysore, Coorg, Coimbatore, and Madras. In other words, besides the several advantages of a good business for the fishing class and the merchant dealing in fish, it does immense good to the poor people at large, and to the country. A regular and heavy haul of sardine and mackerel during the proper season is a source of pleasure and prosperity not only to the public who consume fish, but also to the well-to-do.

"To exemplify the above statement, we may quote a practical instance. When fish is dear, only two or three sardines can be had for one pie, and one mackerel for two pies. The fish, when it is taken to the market during the time of scarcity, is soon sold, and the poor who live at a distance from the market, and even those who happen to be near the market, are not in a position to buy them; whereas, when there is a considerable quantity of the kind of fish mentioned, they become dirt cheap in the market. So much so, that a basket full of sardines, numbering about 200, can be had for a single pie, and sometimes for nothing, and 25 mackerel for 2 pies. Consequently, a family requiring a daily expense of Rs. 1½ can pass the day rather comfortably,

when the fish is cheap, at the expense of 10 annas at the greatest. Hence it is that our forefathers gave the familiar name of kudumbam pularthi to the sardine and mackerel.

"Seeing that sardine is a very good manure for the coffee plantation, the European merchants of the place undertook to prepare a large quantity of the manure at the expense of thousands of rupees every year, thereby rendering immense good to the country, and especially to the poorer class who worked under them, and to the fishermen, who also got a tolerably fair price for their game. The contractors and bandy (cart) men, who undertook to transport the manure to the gardens, also own that it was a lucrative job.

"Now that there is a scarcity of fish, especially of sardine and mackerel, the public who consume fish are put to great hardship, and the poor fishermen, who are solely depending upon the seafaring life for their maintenance, are day by day pushed to the brink of dire poverty.

"Ever since the introduction of the fish-curing yard, the quantity of salted fish has fallen considerably low from diverse causes. The fall in the quantity of dry fish may be attributed—

- (a) to the very high price of salt issued from the yard, compared with the extensive sea-beach, where the salt fishes were dried formerly;
- (b) to a stringent rule prohibiting the removal of salted fish beyond the precincts of the yard for getting it dried.

"In good old days, the nets mentioned below alone were made use of for fishing, and there was a regular supply of different kinds of fish during the proper season :—

1. Odam vala.
2. Ozhuku vala, odu vala, vareau vala, or chara vala.
3. Veechu vala.
4. Kora vala.

The above contrivances were so much adapted for fishing that, during the operation of fishing with the nets, it created no noise or dread among the shoals of fish.

"Some five or six years ago, a new kind of net, known as ayla thattu vala, mathi thattu vala, and mathi chala vala, was introduced by a very few of the fishermen. At the commencement of the season, when the sardine and mackerel approach the shore, these new nets are made use of, with the result that the tremendous noise, which is the sequel of the innovation, is just sufficient to scatter the shoals of all the

kinds of fishes that are near the shore, and to scare them away to the depths, where we do not venture in our small boats.

"This mode of fishing with the *thattu vala* is briefly as follows: A small boat with three or four men, and a pretty long sheet of this net, consisting of some half-a-dozen small pieces joined together edgewise, would quite do. As soon as these boatmen come upon a shoal of mackerel or sardine, they put the net (having weights and floats on either side) all round the shoal like a fence. Soon after this the boatmen set up a tremendous noise by beating the sides of the boats with oars, rudder, and sticks especially adapted for it, and by throwing the plumbs violently in the centre of the enclosure. The tumult and hurly and burly thus created by them frighten the fish, and scatter them away in all directions, with the result that the majority of them escape by jumping, and very few get entangled in the meshes of the net, and die hanging. The remaining fish, and also those in the immediate neighbourhood, hasten to take shelter in the depths, where ordinary fishermen do not go.

"By this the innovators not only fail to get enough of fish to meet the requirements of the public, but they also deprive ordinary boatmen like us of an honest game. The result of the working with the *thattu vala* may be enumerated as follows:—

- (1) The supply of fish becomes limited
- (2) The price of the fish rose very high.
- (3) The poor are unable to buy and eat them.
- (4) No fish manure was prepared for the last two or three years.
- (5) A decline in the fish-curing industry.
- (6) Vegetation becomes a failure.
- (7) Severe loss to the contractors, to the European agents engaged in the preparation of fish manure.
- (8) Poverty among boat-owners and fish-curers.

"Experienced boatmen, fully alive to the advantages of the old and new system, have more than once convened meetings, and resolved to put a stop to the new mode of fishing; but the innovators, contenting themselves that they are in a position to maintain themselves by the small game they get at the expense of a petty sum, often break loose from the resolution, and have recourse to the new practice, to bring about the ruin of the ordinary fishermen like us. Any and every ordinary boatman, from Tanúr to Mattool, will admit that the innovation is the source of poverty among fishermen.

The mere fact that, in every important village, public meetings of both Mukuvers, Christians, and Moplahs, have been held to pass unanimous resolutions, prohibiting the purchase of the fish brought by the innovators, would show that the fishermen in general have set their face against it, and are doing their best to discourage the practice.

"In deprecating the thattu vala system, we beg most respectfully to mention a few of the advantages of the old and established method of fishing. The operation is one without any disturbance. The shoal of fish enter the cone-like net in a body, and, as the net is raised, the fishes go to the bottom of the net. By this we do not in any way disturb another body of fish in the immediate neighbourhood, with which our companion boatmen are engaged. The remainder of the fish, that did not enter the net at the outset, can be caught by the same boatman who has lost it, or by his neighbour without any room for complaint. Almost every kind of fish can be caught in the nets used by us, whereas by the thattu vala only mackerel and sardine could be caught.

"An ordinary pair of fishing boats, with all its requisites, would cost us something between Rs. 3,000 and Rs. 4,000. Your honour may be pleased to take into consideration the fact that, if the thattu vala method of fishing was a thriving or lucrative job, we could have as well kept a thattu vala at the expense of Rs. 30 or Rs. 40, and competed with the innovators, instead of renewing our old and costly method. If all of us were to substitute thattu vala for our own costly nets, the consequence would be that, in the course of a few months, all the fishes that approach the shore would disappear from the sea, and take refuge in the depths.

"In these circumstances we most humbly beg your honour will be graciously pleased to order the discontinuance of the thattu vala, which will be a source of an everlasting welfare among the fishing classes."

November 4th.—By road from Tellicherry to Cannanore. To Colonel Burton, commanding the 25th Madras Infantry, whose recent successful efforts in enlisting Moplahs is well known, I am indebted for the series of photographs, from which the illustrations of the Cannanore fish industry were reproduced. It had been my intention to study, by anthropometric methods, the physique of the Moplah sepoys, who have become most amenable to discipline, while training and good diet have improved their physique, which was good at the commencement. But the time of my visit was not well

selected, as many of them were suffering from the painful and febrile results of plague inoculation prior to their transfer to an infected locality (Bangalore). However, I append (Table IV) the results of measurement of eighteen individuals. As was inevitable in a community recruited by converts from various classes, the sepoys afforded an interesting study in varied colouration, stature, and nasal configuration. One very dark-skinned, and platyrrhine individual, indeed, had a nasal index of 92.

TABLE IV.
Moplah Measurements.

Age.	Height : cm.	Shoulders : cm.	Chest : cm.	Dynamo- meter.	Time in Regiment.	Original home.
17	164.1	39.9	75	68	5 months ...	Ernád taluk.
18	168.6	38.9	81	72	10 „ ...	Walavanád „
19	165.6	40.9	83.5	72	12 „ ...	Ernád „
19	161	42.2	81	71	12 „ ...	„ „
19	168	39.7	82.5	72	1½ year ...	„ „
19	171.1	39.8	82.5	67	7 months ...	„ „
20	173.2	42.1	88.5	86	11 „ ...	Walavanád „
20	163.4	40.1	85.5	75	3 years ..	Cochin.
20	166.6	42.6	78	70	3 „ ...	Ernád taluk.
20	165	40.5	81.5	74	11 months...	Ponnani „
20	164.8	37.3	77.5	60	2½ years ...	Ernád „
21	169.8	40.8	86	75	1½ „ ...	Walavanád „
21	166.6	38.8	80.5	72	2 „ ...	„ „
22	162.4	39	89.5	79	4 „ ...	Ernád „
22	165.4	38.9	83.5	82	1½ „ ...	Ponnani „
22	165.2	40.8	84.5	64	8 months ...	Ernád „
22	165	42.5	85	78	10 „ ...	„ „
22	169.4	41	86.5	71	3 years ...	„ „

The fish-curing yard, and fishermen's huts, are situated, away from the town, at the southern extremity of the municipal limits; and, to reach it, a walk along the sea-shore, on firm sand left by the out-going tide, was necessary. Discarded on the beach were parrot-fishes (*Tetrodon*), *Triacanthus*, and *Muraena*, in company with dead crustacea (*Matuta*, *Neptunus*, and *Ocypoda*), and the shells of the boring mollusc *Pholas*. The *Tetrodons*, known by natives as sea-frogs, owing to the noise which they make when caught, are said to be very indigestible, or even poisonous. Annelid worms were being caught for bait, between tide-marks, by means of small fish held over the mouths of their burrows to entice them to the surface, and stored in half cocoanut shells. Fishermen were busy repairing their nets, and sales of fresh fish, displayed on the sand or in little boats, were being conducted amid a buzzing accompaniment of flies, and the usual environment of crows. Drying on the sand, in large numbers, were mackerel, of which a considerable shoal had arrived a few days previously.

The yard is well beyond the reach of the monsoon storms, and approached by a long, sandy lane leading to the main entrance. It is the property of Government, and the products of the cocoanut trees within it had been sold by auction on a three years' lease for twenty-nine rupees. The ticket-holders were 9 Moplahs, 1 Native Christian, and 64 Mukkuvans; and the Moplah sheds were concentrated together at one end of the yard.

The prevailing fishes in the yard were mullan (*Equula*), tholayan (*Trichiurus*), charla mathi (*Clupea fimbriata*), adavu (*Lactarius*), kola-kaien (*Dussumieria*), and amberta (*Opisthopterus*). The little mullan sometimes arrives off the coast in large shoals, pursued by kora, shark, seir, and other big fishes, and is cured for local consumption. Neatly arranged on the drying-ground was shark-flesh in the form of rosettes, the flesh being cut in wedge-shaped strips radiating to a centre.

The appended table (Table V) shows the returns of the more important fishes brought to the Cannanore yard from 1893 to 1898.

TABLE V.
Fish Statistics, Cannanore.

Year.	Mackerel.	Sharks.	Cat-fish.	Sardines.	Seer.	Mullau.	Kora.	Total fishes, all kinds.
1893-94	MDS. 8,946	MDS. 1,403	MDS. 4,017	MDS. 8,334	MDS. 1,735	MDS. ...	MDS. ...	MDS. 35,976
1894-95	4,835	1,433	7,814	4,892	1,041	...	...	31,801
1896-96	12,228	2,450	7,563	13,888	633	7,280	3	46,944
1896-97	3,028	4,098	7,598	11,763	2,279	4,198	6,587	48,288
1897-98	17,678	2,094	8,281	1,158	21	2,568	96	37,239

During the present fishing season there had been only two fair shoals of sardines, yielding 113 and 107 maunds respectively. The last good season for sardines was four years ago, since which time they have not arrived in quantities sufficient for the purpose of manure. The fishermen maintain that the dearth of sardines on the east coast is due to the absence, in the Bay of Bengal, of the grey ooze, which forms the seabottom off the west coast, and constitutes the main food of the sardine. This ooze, in the form of a frothy dark-grey scum, was being rolled in by a heavy ground-swell during my stay at Cannanore, leaving a grey pellicle on shore as the time went out. The failure of the sardine fishery is attributed to the introduction of the thatu vala, which is used by a few Moplah fishermen, and the now expected petition on the subject thereof was submitted. A superstition prevails among the Moplahs that, if sardines are placed near a Moplah mosque in the vicinity of the yard, a failure in the fishery will result.

A quaint Cannanore custom is referred to by Day, who,* writing in 1873, states that "at Cannanore the Rajah's cat appears to be exercising a deleterious influence on one branch at least of the fishing, viz., that for sharks. It appears that, in older times, one fish daily was taken from each boat as a perquisite for the Rajah's cat, or the 'poocha meen' (cat-fish) collection. The cats apparently have not augmented so much as the fishing boats, so this has been commuted into a money payment of two pies a day on each successful boat. In addition to this, the Rajah annually levies a tax of Rs. 2-4-0 on every boat. Half of the sharks' fins are also claimed by the Rajah's 'poocha meen' contractor."

November 7th.—From Cannanore by river to Bekal, on the southern border of the South Canara district. From the landing-stage my despatch box was reluctantly carried to the traveller's bungalow by a very dark, short, and platyrhine Holey. The Holeyas, who are the field labourers and former agrestic serfs, are to South Canara as the Cherumans and Paniyans are to Malabar. The Bekal river, which was teeming with fish-fry, would, had time permitted, have afforded an excellent opportunity for studying the larval and

* *Sea Fisheries of India, 1873.*

post-larval forms of those fishes, which come up the river for spawning purposes.

From my travelling companion, the Manual of South Canara, I learn, at the outset of a visit to a new district, that "among sea and estuary fish the pomfret, black and white, the seer, the mullet, and the whiting are the favourites at European tables, but the species caught in the greatest abundance are the Indian pilchard ('sardine') and the Indian mackerel, both of which are often found in such numbers that a large surplus remains for use as manure. Now that the old-fashioned rough curing with salt-earth has been put a stop to, the fish-curing yards provided by the Salt Department are gradually being resorted to, and a brisk trade in salted mackerel appears to be springing up. Great numbers of seer and other large fish are also caught by Ratnagiri fishermen in the open sea, and brought to the South Canara yards to be cured. Besides the comparatively fine class of fish above mentioned, numbers of coarse fish, such as the dog fish, the ray and the hammer-headed shark, are eaten by the poorer classes of natives.

"Oysters are met with all along the coast, the best being, perhaps, the small oysters on the rocks about the islands off Udipi, and the large oysters at Coondapoor, and in the back-water at Mogral near Kumbha."

A whale (*Balenoptera indica*, the great Indian fin-whale) was thrown up on shore at Mangalore some years ago, and its skeleton, with the whalebone, is preserved in the Madras Museum.

As bearing on the sea-fisheries of South Canara, the following précis of correspondence relating thereto may be placed on record:—

In 1892 certain members of the fishing community appealed to the Government of India against the orders of the Madras Government declining to withdraw the prohibition of the use of salt-earth for fish-curing purposes. The petition was forwarded to the Government of India by the local Government with the remark that, both in the interests of the people and of the public revenue, it was their policy to prohibit the use of salt-earth, and to open a sufficient number of fish-curing yards, where persons would be free to cure fish with salt issued at cost price. This arrangement, it was pointed out, could not cause any hardship.

The Government of India called for information on the following points:—

- (a) What number of persons of the fisher class have abandoned their calling since the present system came into operation, and what proportion do they bear to the total number then employed?
- (b) What quantity of fish has been cured in the district in each year since that period?
- (c) If the quantity has declined naturally, to what cause is the decline due; and from what source is the demand met, so far as the local supply cannot meet it?
- (d) What is the average price of salt supplied to the fish-curing yards; whence is the salt brought; and how does the price compare with the cost at which the fishers were able to cure their fish?
- (e) Is the salt supplied the cheapest procurable; and can the price be reduced?

Meanwhile a despatch was received from the Secretary of State, forwarding a copy of a question asked in the House of Commons by Mr. W. S. Caine concerning the use of salt-earth by fish-curers on the Canara Coast.

The Board of Revenue, after consulting the Collector of South Canara, replied to the various questions *seriatim*, and reported that the fishermen of South Canara have not been affected by the prohibition of the use of salt-earth to anything like the extent represented.

In 1894 a despatch was received from the Secretary of State, in which it was asked whether some other steps could not be taken to promote the convenience of the coast fishermen, and to safeguard their important industry: and Government was requested to consider in what reasonable way the fish-curers on the Indian Coast could be relieved from their disabilities. In referring this despatch to the local Government, the Government of India invited attention to the following facts, under which the fish-curers of South Canara were distinctly at a disadvantage, as compared with those in the adjacent district of North Canara:—

1. Fish-curing yards are more numerous in North than in South Canara.



FISHING VILLAGE, CANNANORE.

2. The price charged by Government for salt issued to fish-curing yards in North Canara varied from 6 to 8 annas, whereas, in the yards in South Canara, it was 12 annas and 1 rupee.
3. In North Canara licenses to use salt-earth were freely issued at all places that are not within ten miles of a curing yard; while, in South Canara, the use of salt-earth was altogether prohibited.

The Local Government, after calling for a full report, passed the following orders :—

- (a) To open a large number of fish-curing yards, in which the curers could obtain salt at a low price.
- (b) That the cost of construction and repair of fish-curing yards be borne by Government.
- (c) Reduction of the price of salt to 10 annas per maund.

Finally, the Government of India ruled that the price of salt supplied to the curers should be reduced to the cost of production and transport, as the prohibition of the use of salt-earth has prevented them from using an article, which they obtained free of cost. It was, therefore, resolved that the price of salt should be reduced to 6 annas 8 pies per maund.

The appended statistics (Table VI) are interesting, as showing the progressive development of resort to the curing yards by the South Canara fishing community. In reviewing these statistics, the Board of Revenue remark that "no information is available as to the quantity of fish cured in South Canara before the prohibition of the use of salt-earth in 1882; but it appears that, in the three previous years the imports and exports of salt fish had averaged 21,827 maunds and 8,939 maunds, respectively, leaving a net average import of 12,888 maunds. The fish-curing yards reached their highest pitch of prosperity in the four years ending 1890-91, during which they dealt annually with a little over 100,000 maunds of fish. The imports and exports of salt fish for this period averaged 19,802 and 27,559 maunds, respectively. The district consequently, instead of importing to meet the requirements of its population, as it did under the old salt-earth system, had become able to export a considerable

surplus of cured fish. This fact is conclusive evidence that, so far from the prohibition of the use of salt-earth having injured the fish industry, it has done exactly the reverse, owing doubtless to the better quality of the article which the fish-curing yards enabled the fishermen to turn out, and the higher price it commanded stimulating them to greater exertions. Referring to a decline in the quantity of the fish brought to the yards, commencing in 1891-92, the Board continue: "There appears to be no reason whatever for supposing that the recent decrease is due to anything except accidental fluctuations in the shoals of fish arriving on the coast, combined possibly with over-fishing in the estuaries by foul means, such as poison and dynamite¹⁹. Mr. Power is of opinion that the decline in operations in 1894-95 should be attributed, not to the prohibition against the use of salt-earth, but to the variable nature of the fishing seasons. This is corroborated by the statement of one of his Tahsildars, who reports that the decrease is said to be chiefly owing to the unfavourable migration of herrings, and to the consequent decrease in the catches. As the result of his own personal inquiries in the Mangalore taluk, Mr. Welsh states that there has been a falling off in the catches of sea fish due to the failure of shoals and competition by fishermen of other districts, and that the catches of estuary fish also have not been so large as formerly. The Tahsildar pointed out to him a place, which the latter knew to have been swarming with fish in former years, but where few are now to be seen owing to dynamite having been used for their destruction. Even the fishermen, whom the Collector interviewed, are reported to have attributed the decrease at first to that cause, to poison, and to the unusual nets used by visitors, and to have said not a word about the prohibition to use salt-earth, except in a village which he visited on the 6th June, by which time the desirability of ascribing their difficulties to the salt-earth prohibition had occurred to them."

¹⁹ In addition to orthodox nets and bait-fishing, "shooting with a Chittagong bow, or bows and arrows, capturing by means of bamboo labyrinths, and poisoning the water by *Nux vomica*, *Cocculus indicus*, croton-oil seed, or other deleterious substances, are all common; also damming up and lading out streams, purse-nets in small water-courses, especially in rice fields, catching by the hand or by means of wicker baskets, somewhat resembling the eel traps of Europe, but which are rapidly pressed down over the fish" are resorted to in India—Day: *Fishes of Malabar*.

TABLE VI.

South Canara Fish-curing Statistics.

	Number of yards opened.	Number of yards at work.	Applica- tion.	Fish cured.	Salt issued.
				Mds.	Mds.
Half year ending 31st March 1882 ...	1	1	1	88	6
Do. 30th September 1882	1	...	...	...	...
Do. 31st March 1883 ...	19	2	104	524	191
Do. 30th September 1883	19	...	...	...	...
Do. 31st March 1884 ...	19	9	1,744	18,411	3,716
Do. 30th September 1884	19	2	19	147	16
Do. 31st March 1885 ...	19	10	2,608	20,617	5,740
Do. 30th September 1885	19	3	110	778	131
Do. 31st March 1886 ...	(9 closed) 10	9	6,567	66,477	14,948
Do. 30th September 1886	10	9	501	5,894	1,833
1887-88	12	10	8,508	115,423	19,387
1888-89	12	10	8,591	102,520	17,204
1889-90	10	10	10,030	104,178	14,782
1890-91	10	10	11,312	100,584	16,033
1891-92	10	9	9,592	69,176	10,706
1892-93	9	9	9,973	54,767	7,540
1893-94	9	9	10,074	85,607	11,227
1894-95	10	9	11,236	71,560	10,142

In Malabar the minimum quantity of salt given out to the curers is five seers, in South Canara one seer. In the course of an interview with the fishermen, in 1895, the Collector gathered that they were labouring under certain

disadvantages in getting their fish cured in the yards, among which were:—

1. That salt is not at present issued to the curers in smaller quantities than 5 seers;
2. That, if the fish brought is below a certain weight, it is kept waiting until enough is got to make up that weight, and sometimes rots before sufficient quantity arrives, and has to be thrown away.

In connection with the first of these grievances, the Deputy Commissioner explained that the minimum quantity of salt to be issued was fixed at 5 seers, to avoid difficulty in collecting the value of any less quantity, especially when fractions of a pie were involved, as the general rate at which salt was issued for fish-curing purposes was annas 8 per maund (of 40 seers). He saw no objection to the reduction of the quantity to one seer, as it might tend to increase the fish-curing operations, and encourage small curers to resort to the yards. As the fish-curing industry has become an exceedingly profitable one in Malabar, no change was, in his opinion, called for.

Salt for the South Canara yards is obtained from Tuticorin, and stored in a depôt at Mangalore, whence it is distributed to the various yards.

After which digression I return to Bekal, where, on the way to the curing-yard, I noticed numbers of children carrying on their heads bundles of the dried stems of sunn-hemp (*Orotalaria juncea*), which is cultivated all along the coast, and used for the extraction, by retting, of fibre for the construction of fishing nets. This plant was, I was assured, shown to the Ganja Commission as ganja (*Cannabis sativa*, Indian hemp). The yard, situated between the sea and the main trunk road, was fenced in by a triple row of screw-pines (*Pandanus odoratissimus*). Drying outside the yard were mackerel, and cat-fish and kora were packed ready for export to Colombo from Cannanore, whither they are taken by pattamar (lateen-rigged sailing craft).

The officer in charge of the yard was a Roman Catholic duffadar in receipt of Rs 9 per mensem. The ticket-holders, 43 in number, were all Mukkuvans, and, as a relief, in the absence of the much abused net, I heard no complaint about the thattu vala. A few of the fishermen own cocoanut topes (groves or orchards), and borrow money from Moplah traders

during the slack season for their maintenance and carrying out repairs of their nets. The boats, forty in number, are made of aini, pún (*Calophyllum tomentosum*), and champak (*Michelia Champaca*). The equipment for a pair of boats is, I was told, four cotton nets, and a single hemp net.

The drying ground was, as regards fish, an absolute blank, and the sole evidence of the object of the yard was in the form of dried scales of bony fishes lying scattered about. Big fish are said to predominate over small at Bekal, with kora as the main source of steady income, though good prices are realised for seir, pomfret, and others. Kora sounds are sold at 4 to 6 annas each, and cat-fish sounds at 1 to 2 pice each. The best season for kora is in August and September, i.e., towards the close of the South-west monsoon.

The yard statistics showed the following results during the last four years: (April—November.)

—				Fish.	Salt.	Value of salt.
				MDS.	MDS.	Rs.
1896 (April—November)	...	...	...	4,883	574	358
1897	"	...	...	4,972	721	300
1898	"	...	...	742	92	38
1899	"	...	...	2,532	357	143

The year 1898 was a very bad one for the fishermen. But, during the present year, fishing operations have been more brisk, and good hauls of cat-fish and kora have been secured. The last good season for sardines was 1895, when it was possible to drive for many miles along the coast-line amid the unsavoury surrounding of sardines drying for manure. Mackerel, sardines, and munangu (*Engraulis*) are bought up for manure by local cultivators of tobacco, which thrives on this part of the coast. My recollection of the manure-heaps on the road between Bekal and Kaseragode is still vivid. The boats brought in, during the time of my halt at Bekal, amberta, white and black pomfret, *Trichiurus*, mullan, tholari, young cat-fish, kora, adavu (*Lactarius delicatulus*), soles, kolachi or kolakaien (*Dussumieria acuta*) and prawns. Nowhere, during my tour, did I see prawns caught in such large numbers as at Tanúr, and they are said to be most abundant in South Malabar. Devilled prawns, soles,

whiting, and pomfret were a grateful addition to camp dietary in a district not celebrated for the quality of its mutton.

Dredging during two days realised a number of molluscan shells, coarse in contrast with those from stations further south, and consisting mainly of bivalves from a neighbouring shell bed. A very similar shell-bank was found by the dredge off Kasaragode, whither we proceeded on November 10th. Here again, the thattu vala is not used, as the fishermen, both Mukkuvan and Moplah, believe that it permanently frightens the fish away, and harmony prevails. The ticket-holders in the yard, 33 in number, were all Moplahs. The large, spacious yard, with the salt-shed in the middle, is situated on an isolated sand-spit near the mouth of a tidal river, where pattamars were taking in a cargo of fish consigned to Mangalore. The yard, on the occasion of my inspection, contained a mean show of fish, kora, small sharks and cat-fishes, and mackerel, from a recent small shoal, stacked in parallel rows, and covered over by six layers of coir matting. The only grievance was the absence of sardines during the last few years, which the Moplahs accept philosophically, and attribute to the act of God. As we were leaving the yard, a single boat arrived, with a few handfuls of nettalu (*Engraulis*; white bait) as the poor result of six hours' fishing; but the crew were made happy with a *pour boire*, wherewith to drown their disappointment in arrack.

November 11th and 12th—A "musical ride" in a manjil from Kasaragode to Mangalore, with a halt at Manjeshwar, where I was greeted, on arrival at the travellers' bungalow, by the vinaceous-red-backed batrachian *Rana malabarica*, which never appears on the east coast.

Mangalore, the chief town of the South Canara district, is situated on an extensive backwater formed by the convergent mouths of the Nétravati and Gurrpūr rivers, into which Arabian bāgālas and country sailing-craft enter in considerable numbers. The town abounds in church bells and Native Christian females, who, on festal days, and on the way to church, may be recognised by the white mantle (vol), which is drawn over the head, and covers the entire body. More interesting, however, from an ethnological standpoint, was a small party of dark-skinned Koragas, who, until recent years, wore a primitive garment of leaves, now replaced by a more up-to-date cotton cloth. "This tribe," the Manual tells us, "is divided into three clans—the Andé or Ada Koragas,

Vastra Koragas, and Soppu or Soppina Koragas. Formerly the first mentioned was considered so unclean that they were not permitted to spit on the public way, but had a pot suspended from the neck, which they used as a spittoon." It was noticeable that, as I passed down the line during my inspection, the females, as a mark of respect, removed the cotton wrapper with which their bosoms were covered.

Mangalore indulges in three fish-curing yards, of which the Bokkapatnam yard was selected for inspection. The yard is divided into neat oblong blocks, one for each curer, with boundary railings of cocoanut leaves, and a central track leading to the salt depôt. For night work a lamp was fixed on the top of a long pole outside each shed. Hanging on the wall of the yard office, my inspecting eye caught sight of the saw of a saw-fish, which, on enquiry, was said to be used as a "threatening instrument" in the yard. The ticket-holders were nine Moplahs and thirteen Mogers (Tulu fishermen). Some of the Mogers, I was informed, use the thattu vala (or áchi vala), which forms the subject of discussion at local indignation meetings. A few years ago the hated nets were cut to pieces, and thrown into the sea, as a protest against their employment. A free fight ensued, with the result that nineteen individuals were sentenced to a fine of Rs. 50 and three months' imprisonment.

Working in the yard were a number of Holeiya cooly women, clad in areca palm caps, blue body-cloth, stained and dirty, but hanging in graceful folds, heavy brass and leaden bangles, brass and bead necklets, and cadjan rolls in the dilated ear-lobes.

The fishery returns during corresponding periods of the last four years showed the following results:—

1896 (April 1st to November 12th)	..	4,173	maunds.
1897 do.	..	2,642	"
1898 do.	..	3,667	"
1899 do.	..	8,405	"

The present season was a good one, as compared with recent years, and the increase in fishing operations was attributed to good catches of mackerel, and to the enlargement of the yard, with consequent increase in the number of curers. The most plentiful fish in the yard, at the time of my visit, were mackerel, manungu, sharks, seir, skates, and pomfret. Fish are said to be imported into Mangalore from the Kurrachee coast to the value of Rs. 50,000 to Rs. 60,000

annually. The godowns (warehouses) of several Moplah merchants, which I visited, contained considerable stores of fish-manure for coffee-planters, and sharks, cat-fish, kora, and mackerel, ready for shipment to Colombo.

For the appended statistics (Tables VII and VIII) relating to the Mangalore trade in fish, shark-fins, and fish-maws, I am indebted to Mr. D. J. McFarlan, Agent to Messrs. Arbuthnot & Co.

TABLE VII.

Quantity and Value of Salted Fish exported from Mangalore to Colombo, 1892-99.

—	Salt-fish.		Fish-manure.		
	LBS.	RS.	TONS.	CWT.	RS.
1892-93 ...	1,723,406	1,38,365	...	...	...
1893-94 ...	1,812,660	1,71,085	...	...	...
1894-95 ...	1,717,534	1,41,734	29	11	889
1895-96 ...	2,340,386	2,33,391	3	12	108
1896-97 ...	1,443,281	1,43,154	...	...	...
1897-98 ...	1,942,413	1,92,430	...	...	...
1898-99 ...	2,635,990	2,87,817	...	...	...

TABLE VIII

Quantity and Value of Shark-fins and Fish-maws exported from Mangalore, 1892-99.

—	To Bombay.		To Malabar.		Ports within the South Canara District.		To London.	
	LBS.	RS.	LBS.	RS.	LBS.	RS.	LBS.	RS.
1892-93	61,587	25,954	...	...	...	...	...	...
1893-94	51,933	22,452	448	232	28	4	...	...
1894-95	63,438	31,384	...	...	...	...	...	...
1895-96	52,479	29,285	14	3	...	...	...	...
1896-97	46,424	25,470	38	6	...	...	...	...
1897-98	79,212	44,197	84	60	...	...	4,200	6,300
1898-99	34,300	19,339	504	1,000	...	...	6,048	13,960

November 15th, 16th. From Mangalore to Malpe. In crossing the Parvanjee river by the ferry-boat, an enormous shoal of big rhizostomids was noticed. The chuttram (rest-house) at Malpe is situated within easy range of the stench from the curing-yard, which was wafted southward as the daily sea-breeze set in, and permeated both food and clothing. In front of the chuttram is an extensive tidal mud-flat, whereon do assemble, both by day and night, quarrelsome, hoarse-voiced, low-bred and ownerless pariah dogs, glutted with a surfeit of fish dietary. This flat, apart from dogs, was crowded with the mud-loving molluses *Cerithium*, *Nerita*, and *Telescopium*, and the calling crab *Gelasimus*. The shells of *Telescopium* I have seen on the mud-flats of Narrikál, near Cochin, looking like the spikes of the helmets of a submerged British Regiment.

To Malpe, during the fishing season, come fishermen with a flotilla of keeled and outriggered sailing boats from Ratnagiri in the Bombay Presidency. Hither also come fishermen from Goa, who can be easily distinguished by the copper hue of their skin, and rosary of black and white beads, often supplemented by a red bead necklet. The Goanese fishermen migrated to Malpe owing to the disturbances and political troubles in Portuguese India in 1895. The reasons given by the Ratnagiri fishermen for coming southward are that fish are not so abundant off their own coast, competition is keener, and salt more expensive. Moreover, the crystals of Bombay salt are too large for successful curing, and "do not agree with the fish, of which the flesh is turned black." If, they said contemptuously, they were to sun-dry fish by the local method, their people would chaff them for bringing back, not fish, but dried cow-dung for fuel. It is noted in the Annual Report of the Salt Department, 1894-95, that the increase in the proportion of salt issued to fish cured was due to the peculiar method of curing adopted by the Ratnagiri fishermen, which requires a large proportion of salt. In the system of curing as adopted by them, big fishes are split longitudinally on each side of the vertebral column, and, after the salt has been sprinkled on by hand, neatly stacked in alternate layers at right angles to each other. Salt is applied in the following proportions:—

- 1st day, 5 seers—1 maund of fish.
- 2nd day, 5 seers—1 maund of fish.
- 3rd day, 3 seers—1 maund of fish.



FISH-YARD, MANGALORE.

The fish are then allowed to remain without further treatment, amid red-eyed blue-bottle flies and maggots, until the tenth day, when they are removed to a shed outside the yard, and are ready to be sent away. Fish thus cured can, it is said, be kept for many months without deteriorating. The local fishermen, who resort to sun-drying, apply salt in the proportion of 1 : 8 if the fish is quite fresh, and 1 : 7 if it is slightly tainted. Spoiled fish is not brought into the yard, but dried outside, and sold for manure.

The Ratnagiri boats go well out of sight of land to the fishing ground, where they catch seir, pomfret, kora, and other big fish near the surface, and sharks in deeper water. The fishing entails hard work, as the boats return to the shore about 10 A.M., and start off again between 1 and 2 P.M., to remain at sea until the following morning. Through the night 2 men sleep, 2 men keep a look-out for boats and steamers fouling the nets, and 2 men take charge of the nets from a small rowing boat. If the fishing is not good near head-quarters, the Ratnagiri boats may go as far as Mangalore. In this case, to prevent decomposition from setting in before their return, to the Malpe yard, they sprinkle over the fish a little "bazar salt," which they take in the boat with them. To the Ratnagiri fishermen the seir is the most valuable and lucrative fish, and they say that it does not pay them to come so far from home, and fish for the smaller kinds. Under existing arrangements, by which clashing of interests is avoided, the fishery at Malpe is divided into two zones, viz., the deep sea fished by the large Ratnagiri boats, and the shallow littoral water by the smaller local and Goa boats, which frequently catch good hauls of the smaller fishes between the belt of islands and the shore, where there is sufficient depth to admit steamers of light draft, e.g., the Sheppard coasters. On the Daria Bahadurghur island a new light-house is about to be erected, and I foresee that the light thereof may, in bad seasons due to natural causes, be charged with frightening away the shoals.

The establishment at Malpe consists of a Sub-inspector (also in charge of the *akkári* depot), three yard peons, and two peons in the salt golah (warehouse) outside the yard. The curers were as follows :—

	Registered.	Resorted to yard this year.
(a) Ratnagiri—		
Hindu.. ..	.. 41	16
Muhammadan	.. 41	15

		Registered.	Resorted to yard this year.
(b) Local—			
Muhammadan	..	80	52
Christian	..	41	33
Billava	..	6	3
Moger	..	2	1

The Billavas, who are the numerically largest caste in the district, are the hereditary toddy-drawers, but many of them, at the present day, are agriculturists and labourers.

The coolies in the yard were, at the time of my visit, busy stuffing split and gutted mackerel with salt. After gutting, the fish are taken down to the sea in baskets, thrown into a rope crate, and swung in the water between two men. They are then returned to the baskets, each of which has the curer's number marked on it, and taken to the yard to be cured. On shore, where the guts had been thrown into the sea, were a host of gulls and terns. From the meshes of the nets were extracted various univalve shells inhabited by hermit-crabs. Rejected on shore were *Triancanthi* and flattened jelly-fishes. Very abundant between tide-marks was a star-fish (*Astropecten*), which, in its progress, left a complex trail, side by side with that of the colonial gastropod *Rotella vestiaria*, and the sand pellets thrown out from the burrows of the busy *Gelasimus*. Drying on shore, without previous salting, were great piles of mackerel for future sale as manure; and I was summoned from the dinner-table to inspect, amid these piles, the carcase of an immense skate (*Trygon*), whose last act, as she lay dying on the sand, was to continue the species by bringing forth twelve young ones, who were promptly salted.

The fish in the yard consisted mainly of seir, mackerel, young skates removed *ex utero*, cat-fishes, pomfret, mullan, manungu, 'soles,' amberta, kora, and trichiurus. Seir, mackerel, and pomfret are said to be in full roe in December.

In the fishing village, which is in close proximity to the curing-yard, the population dwells in quarters according to class, and forms separate communities, each with its own beliefs and superstitions, mode of life, and dietary. The huts are situated beneath the grateful shade of yellow-fruited cocoanuts, and the village is intersected by fresh-water channels used for the purpose of ablution and drinking. At the entrance to the village, on the seaward side, the owner

of a coffee-shop was daily doing a brisk business in unalcoholic drinks and light refreshments. A Native Christian ourer, who interviewed me, told me that, as the result of a recent six days' good catch of mackerel, he hoped to make a clear profit of Rs. 50, and to secure a profit of Rs. 200—Rs. 300 on the whole season. The profit depends much on the state of the market at Colombo; the value of mackerel ranging between Rs. 1-6-0 and Rs. 3 per 1,000.

My arrival at Malpe was well timed, so as to be coincident with the return of shoaling mackerel. The best catches of fish, during the present season, as recorded in the yard returns, were approximately as follows:—

—	Big.	Small.	Salt.	Salt value.
	MDS.	MDS.	MDS.	RS.
October 30 ...	159	598	114	47
November 4 ...	224	2,154	322	134
„ 5 ...	404	1,346	200	83
„ 6 ...	269	922	224	93
„ 7 ...	233	430	137	57
„ 9 ...	468	444	159	66
„ 12 ...	162	1,025	159	66
„ 14 ...	732	532	187	78
„ 16 ...	51	40	56	23
„ 17 ...	162	1,235	205	85
„ 18 ...	61	1,144	178	74
„ 19 ...	4	1,945	267	111

The big fishes were mostly seir, and the small mackerel. On the 19th the Ratnagiri fishermen were not out, as, after a series of successful hauls, they ceased operations on account of the moonlight, and beached their boats, so as to give them a coating of oil. The release from sea-work was celebrated by an open-air smoking concert with band and wild choruses.

On November 18th a big haul of mackerel, with coincident youthful sharks, was brought ashore several miles south

of Malpe about midnight, and gutted immediately. At 6 A.M. on the following morning a procession of coolies was discovered, each with a basket-load of fish on his head, making their way to the yard; and the procession, in a continual stream to and fro, lasted until 10 A.M. While the introduction of the great mass of fish, and distribution of salt were going on, dried and cured fish were being passed out of the yard by measure or weightment, and, to add to the pressure of work, the Ratnagiri boats, with sails swelled before the gentle breeze, arrived ashore with their haul of big fishes.

Another big haul of mackerel, which I witnessed, was caught at 10 A.M. four miles south of Malpe, and did not reach the yard until 5 P.M., by which time the flesh was, from exposure to the sun, of indifferent quality as compared with that of mackerel brought to the yard from a catch two hours previously close in shore off the fishing village. The charges in connection with the preparation of the mackerel brought from the more distant locality were, as summed up by a fish-curer, as follows:—

Gutting	..	..	..	2½ annas per 1,000.
Washing	..	..	..	2 pies ,,
Transport by boat	..	..	..	9 ,, ,,
Transport to yard	..	..	..	½ anna ,,
Salting	..	..	..	about 2 annas ,,
Washing	..	..	..	½ anna ,,
Drying	..	..	..	½ ,, ,,
Turning	..	..	..	2 pies ,,
Transport to outside yard	..	..	..	2 ,, ,,

During the census week, December 1st to 7th, 1899, the quantities of mackerel caught in the Udipi circle, in which Malpe is situated, were as follows:—

				Number.
December 1st	..	..	..	1,240,673
„ 2nd	..	..	..	1,914,396
„ 3rd	..	..	..	1,490,462
„ 4th	..	..	..	1,272,747
„ 5th	..	..	..	648,700
„ 6th	..	..	..	386,165
„ 7th	..	..	..	290,304
Total number				7,243,447
Total maunds				13,581

In his report on the census, the Assistant Inspector writes that "the coast line of the Udipi circle is about 66 miles, and this distance was divided into 22 sections. Every boat, which brought fish to the sea-shore or to the backwater crossing a bar, both day and night, was closely examined, and both the number and average weight were recorded in a register. The catches would have been even greater, but for cloudy weather and rough sea on two days. The heavy catches were by means of deep-sea nets, called maribala or rampini, from Goa. These nets are used in some cases by local men also, but, when Goa men are employed, the agreement between them and the local curers is that they should receive 1,000 rupees for every 33 trips, or one rupee for every 1,000 mackerel; the price for the other kinds of fish being settled at the time of catch according to demand.

As I have already done in the case of sardines, I place on record the statistics of the mackerel and seir fisheries throughout South Canara and Malabar, from north to south, during the three years 1896—98.

A. MACKEREL.

Yard.	1896.	1897.	1898.
	MDS.	MDS.	MDS.
Gangoli	23,562	2,977	4,267
Hankarkotta	20,717	4,784	6,989
Malpe	36,583	9,549	26,715
Bokkapatna	4,505	334	1,983
Ullal	2,571	465	1,831
Manjeshwar	3,126	357	5,850
Kumbla	2,753	410	2,347
Kasergode	1,631	697	2,776
Bekal	4,300	512	1,340
Hosdrug	361	38	608
Mangalore	1,614	195	1,169
Taikadpara	95	152	524
Madai	2,811	497	10,841
Azhikal	1,807	402	4,713
Baliapatam	2,949	671	5,017
Cannanore	11,231	3,028	17,678
Telliocherry	17,950	5,055	23,794
Kurichi	2,862	1,261	8,424
Madakarai	4,885	925	5,243
Badagara	8,554	3,104	8,294
Quilandi	13,909	7,926	18,253
Elathur	1,269	1,894	3,135
Pudiappu	3,445	1,882	4,840

A. MACKEREL—continued.

Yard.					1896.	1897.	1898.
					Mds.	Mds.	Mds.
Calicut, North	...	...	...	...	3,394	4,376	12,481
Calicut, South	...	...	...	...	3,175	2,152	5,422
Beypore, North	...	...	...	...	1,147	950	1,893
Beypore, South	...	...	...	...	4,722	2,803	4,908
Parangadi	...	...	...	...	11,061	2,198	24,153
Tanur	...	...	...	...	4,667	3,127	41,525
Paravannah	...	...	...	...	7,101	2,101	9,060
Kuttai	...	...	...	...	3,979	1,460	10,049
Ponnani	...	...	...	...	11,187	2,964	15,202
Puthu Ponnani	...	...	...	...	1,210	8,359	1,583
Veliyangode	...	...	...	...	1,696	1,136	6,663
Palapatty	...	...	...	...	2,732	1,596	9,277
Edakashiyur	...	...	...	...	5,785	1,420	18,943
Chowghat	...	...	...	...	4,545	2,652	19,660
Blangad	...	...	...	...	3,663	1,454	14,861
Vadanapelli	...	...	...	...	2,838	1,886	19,236
Mannalankannu	...	...	...	...	2,282	1,002	9,184
Cochin	...	...	...	...	2,872	386	935
Kurikushi	...	...	...	...	2,434	611	9,291
Bombalore	...	...	...	...	77	287	1,989
Total					253,857	90,035	401,946

B. SEIR.

Yard.					1896.	1897.	1898.
					Mds.	Mds.	Mds.
Gangoli	...	...	...	...	19	15	5
Hankarkotta	...	...	...	...	23	217	30
Malpe	...	...	...	...	3,792	4,096	3,998
Bokkapetna	...	...	...	...	29	91	41
Ullal	...	...	...	...	8	31	...
Manjeshwar	...	...	...	...	278	659	64
Kumbla	...	...	...	...	98	327	38
Kasergode	...	...	...	...	...	8	...
Bekal	...	...	...	...	23	72	482
Hosdrug	...	...	...	...	20	14	283
Mangalore	...	...	...	...	56	61	51
Taikadpara	...	...	...	...	...	...	...
Madai	...	...	...	...	...	238	...
Ashikal	...	...	...	...	67	123	28
Baliapatam	...	...	...	...	...	...	...
Cannanore	...	...	...	...	618	2,279	21
Tellicherry	...	...	...	...	434	2,145	822

B. SEIR—continued.

Yard.	1896.	1897.	1898.
	MDS.	MDS.	MDS.
Kurichi	61	262	87
Madakarai ... ..	...	1,372	27
Badagara	902	1,127	263
Quilandi	8	249	30
Elathur ... ..	...	368	7
Padiappu	1	508	4
Calicut, North	48	1,033	139
Calicut, South	58	742	...
Beypore, North	1	806	...
Beypore, South ... ..	...	19	...
Parpangadi	1,108	2,101	367
Tanur	2,133	2,345	853
Paravannah	76	419	2
Kuttai ... ..	...	964	67
Ponnani	86	167	41
Puthu Ponnani	21	13	14
Veliyangode	26	78	11
Palapatty	111	109	13
Edakazhiyur	610	578	129
Chowghat	374	154	73
Blangad	374	234	24
Vadanapalli	760	138	55
Mannalankannu	151	128	19
Kurikuzhi	9	...	...
Bemballore ... ..	...	26	...
Total ...	12,388	24,321	8,088

Bringing together the results of the sardine, mackerel, and seir fisheries of Malabar and South Canara during 1896—98, the results work out as follows :—

Yard.	1896.	1897.	1898.
	MDS.	MDS.	MDS.
Sardines	387,295	253,649	28,702
Mackerel	253,857	90,365	401,946
Seir	12,388	24,321	8,088

In conclusion, I would invite attention to the appendix, wherein I have tabulated the information relating to catches of 20 maunds and over of the fishes returned in the monthly statements for the Calicut and Ponnáni circles, in which (especially the latter) the forms were more intelligently filled in than in the Northern Circles. The evidence of the returns, though they are an initial and experimental attempt at precise classification, is sufficient to show that, with uniform care and accuracy at the various centres of observation, a valuable record of the movements of fishes and the condition of the fishing industry can be obtained. And I propose to submit immediately to the Board of Revenue a modified scheme of investigation, based on examination of the returns, and the practical experience gained during my wandering on the west coast.

LIST OF FISHES REFERRED TO IN THE PRESENT NOTE.

- Arius*, sp. 'cat-fish,' yata or eta.
Clupea longiceps, 'sardine,' nalla mathi.
Clupea fimbriata, 'sardine,' chala mathi.
Clupea lile, 'sardine,' veloori.
Opisthopterus tartoor, amberta.
Engraulis, sp., manangu.
Engraulis, sp., nettalu.
Dussumieria acuta, 'sardine' : kolachi, kola kaiyan.
Sciaena, sp. kora.
Trichiurus, sp. ribbon fish, thalayan.
Caranx, sp. horse-mackerel, para, kanayan para.
Corinemus lysan, pala.
Equula, sp. mullan.
Lactarius delicatulus; adu, adavu.
Stromateus sinensis, white pomfret, vella akoli.
Stromateus niger, black pomfret, karutha akoli.
Scomber microlepidotus, mackerel, ila.
Cybbium guttatum }
Cybbium commersonii } seir; aikooru.
Cynoglossus, sp. 'sole,' manthal.
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APPEN

Date.	Yard.	Name of fish.	Distance from shore at which caught.	Depth at which caught.	Weather.
1	2	3	4	5	6
1896. 1st Nov. ...	Kuttai ...	C. fimbriata ...	10 yards ...	Surface ...	Sky clear, sea calm.
5th Nov. ...	Tanur ...	C. lile ...	1½ miles ...	Surface ...	Sky clear, sea calm.
6th Nov. ...	Tanur ...	C. lile ...	2½ miles ...	Surface ...	Sky cloudy, sea calm.
6th Nov. ...	Tanur ...	C. longiceps ...	2 miles ...	.....	Sky clear, sea calm.
6th Nov. ...	.....	Seir ...	2 miles ...	.....	Sky clear, sea calm.
6th Nov. ...	Ponnáni ...	C. lile ...	1½ miles ...	Surface ...	Sky cloudy, sea rough.
7th Nov. ...	Parpangadi ...	C. longiceps ...	1 mile ...	Surface ...	Bright ...
7th Nov. ...	Kuttai ...	C. fimbriata ...	1 mile ...	Surface ...	Sky cloudy ...
7th Nov. ...	Ponnáni ...	C. lile ...	2½ miles ...	Surface ...	Sky clear, sea calm.
12th Nov. ...	Edakazhiyur...	Black pomfret...	5 miles ...	Surface ...	Cloudy, raining ...
14th Nov. ...	Puthu Ponnáni.	C. longiceps ...	1 mile ...	Surface ...	Cloudy ...
22nd Nov. ...	Ponnáni ...	C. lile ...	1½ miles ...	Surface ...	Sky clear, sea calm.
23rd Nov. ...	Kuttai ...	C. fimbriata ...	1 mile ...	Surface ...	Sky clear, sea calm.
24th Nov. ...	Veliyangode ...	C. lile ...	4 miles ...	.....	Sky clear, sea calm.
27th Nov. ...	Calicut, North.	C. fimbriata ...	3 miles ...	2 fathoms.	Sky clear, sea calm.
29th Nov. ...	Calicut, North.	C. fimbriata ...	3 miles ...	2 fathoms.	Sky clear, sea calm.
20th Nov. ...	Calicut, North.	Seir ...	10 miles ...	5 fathoms.	Sky clear, sea calm.
1st Dec. ...	Calicut, North.	Seir ...	10 miles ...	4 fathoms.	Sky clear, sea calm.
11th Dec. ...	Mannalankannu	C. longiceps ...	½ mile ...	Surface ...	Sky clear, sea calm.
19th Dec. ...	Parpangadi ...	C. longiceps ...	4½ miles ...	Surface ...	Sky clear, sea calm.
1899. 19th Jan. ...	Pudiappu ...	C. longiceps ...	1 mile ...	.....	Sky clear, sea calm.
19th & 23rd Jan.	Madai ...	Sardines (not identified).	3-11 miles.	.....	Sky clear, sea calm.
23rd Jan. ...	Cannanore ...	Seir ...	10 miles ...	.....	Sky clear, sea calm.
23rd Jan. ...	Cannanore ...	Seir ...	12 miles ...	.....	Sky clear, sea calm.

DIX.

Time of day at which caught.	Net used.	Catch maunds.	Stomach contents.	Adult or young; milt and roe.	Sale price.	Other fishes most plentiful.
7	8	9	10	11	12	13
5 p.m. ...	Thread ...	45	Offal ...	.....	.....	Kora.
10-30 a.m.	Thread ...	108	Small fish ...	.....	.....	Kora; adu.
10 a.m. ...	Thread ...	54	.....	.....	.....	Kora; adu.
9 a.m. ...	Thread ...	58	Mud ...	All young.	.....	.....
9-30 a.m.	Thread ...	32	Nalla mathi ...	All young.	.....	.....
2 p.m. ...	Twine ...	30	.....	.....	.....	Charoo.
1 p.m. ...	Thread ...	220	.....	.....	.....	Kora.
1 p.m. ...	Thread ...	227	.....	All young.	.....	Mackerel.
11 p.m. ...	Twine ...	30	.....	.....	.....	Charoo.
Night ...	Thread ...	20	.....	.....	.....	.....
Noon ...	Thread ...	243	.....	Most young	.....	Shark.
1 p.m. ...	Twine ...	150	.....	.....	F. 2 pies; S. 6 pies per 100.	Cat fish.
4 p.m. ...	Thread ...	129	Offal ...	.....	.....	Mackerel.
9 a.m. ...	Thread ...	123	Mud ...	.....	.....	.....
1 p.m. ...	Oda vala.	100	.....	Young ...	.....	Charu; pala.
2 p.m. ...	Oda vala.	75	.....	Young ...	.....	.....
9 a.m.—2 p.m.	Hooks ...	25	Kora and chala mathi.	.....	F. Rs. 5; S. Rs. 5-8 per maund.	Skate.
8 a.m.—1 p.m.	Hooks ...	40	Small cat fish.	.....	.....	Mackerel.
4 p.m. ...	Thread ...	25	Mud ...	.....	.....	Kora.
...	Thread ...	25	.....	.....	.....	Mackerel.
11 a.m. ...	Veechil vala.	28	.....	Young ...	F. Rs. 1-2; S. Rs. 1-6 per 1,000.	Shark; mackerel.
Night ...	Noria vala and peru vala.	150 to 700	.....	.....	.....	.....
2-5 p.m. ...	Hook net.	32	Mackerel ...	.....	.....	.....
8 a.m.—3 p.m.	Peru vala.	48	.....	.....	.....	.....

Date.	Yard.	Name of fish.	Distance from shore at which caught.	Depth at which caught.	Weather.
1	2	3	4	5	6
1899.					
25th Jan. ...	Cannanore ...	Sardines (not identified).	12 miles ...	.....	Sky clear, sea calm.
27th Jan. ...	Cannanore ...	C. longiceps ...	18 miles ...	Surface ...	Sky clear, sea calm.
28th Jan. ...	Cannanore ...	C. longiceps ...	12 miles ...	Surface ...	Sky clear, sea calm.
28th Jan. ...	Tellicherry ...	Sardines (not identified).	3 miles ...	Surface ...	Sky clear, sea calm.
30th Jan. ...	Cannanore ...	C. longiceps ...	12 miles ...	.....	Sky clear, sea calm.
5th-25th Feb.	Madai ...	Sardines (not identified).	3 miles to close in-shore.	Surface ...	Sky clear, sea calm.
13th Feb. ...	Madai ...	Black pomfret.	In-shore.	12 fathoms.	Sky clear, sea calm.
13th Feb. ...	Puthu Ponnani.	Seir	3 miles ...	.....	Sky clear, sea calm.
14th Feb. ...	Madai ...	Black pomfret ...	5 miles ...	.....	Sky clear, sea calm.
14th Feb. ...	Puthu Ponnani	Seir	3 miles ...	.....	Sky clear, sea calm.
14th Feb. ...	Puthu Ponnani	Seir	3 miles ...	.....	Sky clear, sea calm.
22nd Feb. ...	Tellicherry ...	Sardines (not identified).	6 miles ...	.....	Sea rough, high wind.
15th March.	Tellicherry ...	C. fimbriata ...	5 miles ...	.....	.....
11th May ...	Kurikuzhi ...	C. lile	4 miles ...	Surface ...	Sea calm
12th May ...	Mannalan-kannu.	C. fimbriata ...	4 miles ...	Surface ...	Sea calm
17th May ...	Kurikuzhi ...	C. lile	6 miles ...	Surface ...	Sea calm
2nd Aug. ...	Badagara ...	C. lile	6 miles ...	.....	Sky clear, sea calm.
7th Aug. ...	Tanur ...	C. lile	2 miles ...	Surface ...	Sky cloudy, sea calm.
21st Aug. ...	Ponnani ...	C. lile	2½ miles ...	Surface ...	Sky clear, strong wind.
28th Aug. ...	Blangad ...	Black pomfret ...	15 miles ...	4 fathoms.	Sky clear, sea calm.

DIX—cont.

Time of day at which caught.	Net used.	Catch maunds.	Stomach contents.	Adult or young; milt and roe.	Sale price.	Other fishes most plentiful.
7	8	9	10	11	12	13
2-4 p.m.'...	Peru vala.	73	Mud ... ..	.....	.....	Shark.
3-6 a.m. ...	...	22	Mud ... ..	.....	.....	.....
3-5 p.m. ...	...	25	.....	.....	.....	.....
...	...	107	.....	.....	.....	.....
4-5 p.m. ...	Hemp net.	204	.....	.....	.....	.....
.....	.....	Daily : catches ranging from 700 to 16 maunds	.....	.....	.....	.....
Noon ...	.....	50	.....	All large.	.....	.....
2-3 p.m. ...	Hook ...	38	Small fish ...	F. As. 7 ; S. As. 10 each.	.....	Shark ; kora ; pala.
9 a.m. ...	Thattu vala.	130	Small fish ...	.....	.....	.....
2-3 p.m. ...	Hook ...	23	.....	.....	.....	.....
2-3 p.m. ...	Hook ...	22	.....	.....	.....	.....
10 a.m. ...	.....	33	.....	.....	.....	.....
6-11 a.m.	Peru vala.	25	.....	Full grown.	.....	.....
3 p.m. ...	Thread ...	33	.....	.....	.....	Mackerel.
2 p.m. ...	Thread ...	23	.....	.....	.....	Mackerel.
2 p.m. ...	Thread ...	21	.....	.....	.....	Mackerel.
7 a.m. ...	Veechil vala.	80	.....	.....	F. As. 12 per maund.	.....
3 p.m. ...	Thread ...	21	.....	.....	.....	Kora ; masangu ; thalayan.
Noon ...	Thread ...	241	.....	.....	.....	Cat fish ; mackerel.
Midnight.	Vakku vala.	164	Mud ... ..	.....	F. Rs. 6 ; S. Rs. 8 per 100.	Shark ; cat fish ; manthal.

APPEN

Date.	Yard.	Name of fish.	Distance from shore at which caught.	Depth at which caught.	Weather.
1	2	3	4	5	6
1899.					
29th Aug. ...	Blangad ...	Black pomfret ...	15 miles ...	4 fathoms.	Sky clear, sea calm.
29th Aug. ...	Badagara ...	Black pomfret ...	5-8 miles.	5 fathoms.	Sky clear, sea calm.
3rd Sept. ...	Blangad ...	Black pomfret ...	18 miles ...	5 fathoms.	Sky clear, sea calm.
3rd Sept. ...	Chowghat ...	Black pomfret ...	12 miles ...	11 fathoms.	Sky clear, sea calm.
4th Sept. ...	Blangad ...	Black pomfret ...	20 miles ...	5 fathoms.	Sky clear, sea calm.
4th Sept. ...	Chowghat ...	Black pomfret ...	10 miles ...	10 fathoms.	Sky clear, sea calm.
7th Sept. ...	Blangad ...	Black pomfret...	20 miles ...	5 fathoms.	Sky clear, sea calm.
9th Sept. ...	Blangad ...	Seir ...	20 miles ...	5 fathoms.	Sky clear, sea calm.
10th Sept. ...	Calicut, North.	Black pomfret ...	20 miles ...	3 fathoms.	Cloudy, sea calm.
10th Sept. ...	Bemballur ...	C. lile ...	5 miles ...	Surface ...	Sky clear, sea calm.
15th Sept. ...	Ponnani ...	C. lile ..	2½ miles ...	Surface ...	Sky clear, strong wind.
16th Sept. ...	Chowghat ...	Black pomfret ...	15 miles ...	4 fathoms.	Sky clear, sea calm.
21st Sept. ...	Ponnani ...	C. lile ...	2½ miles...	Surface ...	Sky clear, strong wind.
22nd Sept. ...	Cochin ...	C. fimbriata ...	6 miles ...	Surface ...	Sky clear, sea calm.
23rd Sept. ...	Badagara ...	Black pomfret ...	6-8 miles.	2-10 fathoms.	Sky clear, sea calm.

DIX—cont.

Time of day at which caught.	Net used.	Catch maunds.	Stomach contents.	Adult or young; milt and roe.	Sale price.	Other fishes most plentiful.
7	8	9	10	11	12	13
Midnight.	Vakku vala.	844	Mud ... ..	.....	.....	Shark; skate; mullan; kora; cat fish.
Noon ...	Oda vala.	81	.....	.....	.....	Skate; kora; mackerel.
1 a.m. ...	Vakku vala.	56	Mud	Majority young.	F. Rs. 6; S. Rs. 8 per 100.	Shark; kora; cat fish.
Night ...	Vakku vala.	311	.....	.....	.....	Shark; kora; cat fish; mullan; manthal.
1 a.m. ...	Vakku vala.	391	Mud ... ..	.....	.....	Shark; kora; cat fish.
Night ...	Vakku vala.	517	.....	.....	.....	Shark; kora; cat fish; mullan; manthal.
1 a.m. ...	Vakku vala.	210	Mud ... ..	.....	.....	Shark; kora; cat fish.
2 a.m. ...	Vakku vala.	25	.....	Majority young.	F. As. 8; S. As. 10 each.	Shark; kora; cat fish; manthal.
Noon ...	Oda vala...	32	.....	.....	F. Rs. 10; S. Rs. 11 per 100.	Manthal (135 maunds); shark; skate; cat fish; mackerel.
11 a.m. ...	Thread ...	30	.....	All young.	F. Rs. 1-8-0; S. Rs. 2 per 1,000.	.....
1 p.m. ...	Thread ...	.....	.....	.....	F. Rs. 1-8-0; S. Rs. 2-4-0 per 1,000.	Shark.
9 a.m. to 4 p.m.	Vakku vala.	331	.....	All young.	F. Rs. 5; S. Rs. 6 per 100.	Shark; cat fish.
Noon ...	Thread .	241	.....	.....	.....	Cat fish; mackerel.
8 a.m. ...	Thread ...	29	.....	Majority young.	F. 6 pies; S. 1 anna per 100.	.....
11 a.m. ...	Veechil vala.	20	.....	.....	.....	.....

Date.	Yard.	Name of fish.	Distance from shore at which caught.	Depth at which caught.	Weather.
1	2	3	4	5	6
1899.					
23rd Sept. ...	Blangad ...	Black pomfret ...	14 miles ...	1½ fathoms.	Sky clear, sea calm.
23rd Sept. ...	Cochin ...	C. fimbriata ...	6 miles ..	Surface ...	Sky clear, sea calm.
24th Sept. ...	Cochin ...	C. fimbriata ..	6 miles ..	Surface ...	Sky clear, sea calm.
24th Sept. ...	Tanur ...	Black pomfret ...	3½ miles...	Surface ...	Sky clear, sea calm.
24th Sept. ...	Blangad ...	Black pomfret ...	10 miles ...	1 fathom.	Sky clear, sea calm.
30th Sept. ...	Badagara ...	C. longiceps ...	6-8 miles.	2-5 fathoms.	Sky clear, sea calm.
30th Sept. ...	Chowghat ...	Seir	16 miles ...	3 fathoms.	Sky clear, sea calm.
1st Oct. ...	Badagara ...	C. longiceps ...	6-8 miles.	4-6 fathoms.	Sky clear, sea calm.
1st Oct. ...	Blangad ...	White pomfret.	18 miles ...	4 fathoms.	Sky clear, sea calm.
1st Oct. ...	Chowghat ...	White pomfret.	20 miles ...	4 fathoms.	Sky clear, sea calm.
1st Oct. ...	Vadanapalli ...	White pomfret.	12 miles ...	12 fathoms.	Sky clear, sea calm.
2nd Oct. ...	Blangad ...	White pomfret.	18 miles ...	4 fathoms.	Sky clear, sea calm.
3rd Oct. ...	Tanur ...	Seir (C. gutta- tum).	4 miles ...	Surface ...	Sky clear, sea calm.
4th Oct. ...	Quilandi ...	C. longiceps ...	10 miles ...	.....	Sky clear, sea calm.
4th Oct. ...	Beypore, South.	C. longiceps ...	2 miles ...	Surface ...	Sky clear, sea calm.
4th Oct. ...	Edakazhiyur...	White pomfret .	10 miles ...	.....	Sky clear, sea calm.

DIX—cont.

Time of day at which caught.	Net used.	Catch maunds.	Stomach contents.	Adult or young; milt and roe.	Sale price.	Other fishes most plentiful.
7	8	9	10	11	12	13
3 a.m. ...	Vakku vala.	59	.....	.....	F. 10 pies; S. 1 anna 2 pies each.	Shark; kora; cat fish; manthal.
8 a.m. ...	Thread ...	175	.....	.....	.....	.....
1 p.m. ...	Thread ...	109	.....	.....	.....	.....
1-30 p.m. ...	Thread ...	30	.....	.....	F. Rs. 8; S. Rs. 9 per 100.	.....
2 a.m. ...	Vakku vala.	86	.....	.....	.....	Shark; kora; cat fish; manthal.
11 a.m. ...	Peru vala.	Plentiful.	.....	Young.	F. 5 pies per 100.	Manthal.
3 a.m. ...	Vakku vala.	594	Mud ...	Majority young.	F. Rs. 48; S. Rs. 65 per 100.	Shark; cat fish.
10 a.m. ...	Peru vala.	Plentiful.	.....	Young ...	.....	Kora.
Night ...	Rope ...	290	Small fishes ...	Majority young.	F. Rs. 4; S. Rs. 5-3-0 per 100.	Shark; cat fish; kora; mackerel.
7 p.m. ...	Rope ...	363	Mud ...	.....	F. Rs. 48; S. Rs. 65 per 1,000.	Shark; skate; cat fish; pala; mackerel.
1 p.m. ...	Rope ...	82	Mud ...	.....	.....	Shark; cat fish.
Night ...	Rope ...	23	.....	.....	.....	Shark; cat fish; kora; mackerel.
2 p.m. ...	Thread ...	23	.....	Full grown.	F. Rs. 6-4-0; S. Rs. 8 per 100.	.....
10 a.m. ...	Oda vala.	50	.....	.....	F. As. 4 per maund.	Shark; mullan.
9 a.m. ...	Thread ...	176	.....	.....	F. As. 2; S. As. 4 per 100.	.....
1 a.m. ...	Rope ...	143	.....	All young.	F. Rs. 3-8-0; S. Rs. 4-3-0 per maund.	Shark; cat fish.

Date.	Yard.	Name of fish.	Distance from shore at which caught.	Depth at which caught.	Weather.
1	2	3	4	5	6
1899.					
4th Oct. ...	Blangad ...	White pomfret .	16 miles ...	3 fathoms.	Sky clear, sea calm.
4th Oct. ...	Chowghat ...	White pomfret .	20 miles ...	4 fathoms.	Sky clear, sea calm.
5th Oct. ...	Chowghat ...	White pomfret .	20 miles ...	4 fathoms.	Sky clear, sea calm.
7th Oct. ...	Chowghat ...	White pomfret .	20 miles ...	4 fathoms.	Sky clear, sea calm.
8th Oct. ...	Badagara ...	C. longiceps ...	8-10 miles.	Surface ...	Sky clear, sea calm.
8th Oct. ...	Chowghat	White pomfret .	20 miles ...	4 fathoms.	Sky clear, sea calm.
9th Oct. ...	Badagara ...	C. longiceps ...	8-10 miles.	Surface ...	Sky clear, sea calm.
9th Oct. ...	Ponnani ...	C. lile? ...	15 miles ...	.....	Sky clear, sea rough.
9th Oct. ...	Chowghat ...	White pomfret .	18 miles ...	4 fathoms.	clear, sea calm.
10th Oct. ...	Badagara ...	C. longiceps ...	6-7 miles.	Surface ...	Sky clear, sea calm.
13th Oct. ...	Tanur ...	Seir (C. guttatum).	6 miles ...	Surface ...	Sky clear, sea calm.
16th Oct. ...	Quilandi ...	C. longiceps ...	12 miles ...	Surface ...	Sky clear, sea calm.
21st Oct. ...	Quilandi ...	C. longiceps ...	3 miles ...	2 fathoms.	Sky clear, sea calm.
21st Oct. ...	Kuttai ...	C. fimbriata ...	1 mile ...	Surface ...	Sky clear, sea calm.
21st Oct. ...	Mannalankannu.	C. fimbriata ...	2 miles ...	Surface ...	Sky clear, sea calm.
22nd Oct. ...	Puthu Ponnani.	C. longiceps ...	2 miles ...	.....	Sky clear, sea calm.
22nd Oct. ...	Veliyangode ...	C. longiceps ...	2 1/2 miles ...	Surface ...	Sky clear, sea calm.
23rd Oct. ...	Tanur ...	C. longiceps ...	1 mile ...	Surface ...	Sky clear, sea calm.

DIX—cont.

Time of day at which caught.	Net used.	Catch maunds.	Stomach contents.	Adult or young; milt and roe.	Sale price.	Other fishes most plentiful.
7	8	9	10	11	12	13
Night ...	Rope ...	50	.....	.....	.....	Shark; cat fish; kora; mackerel.
7 p.m. ...	Rope ...	41	.....	.....	.....	.....
7 p.m. ...	Rope ...	372	Small fish ...	.....	.....	Shark; skate; cat fish; pala; mackerel.
7 p.m. ...	Rope ...	314	.....	.....	.....	.....
10 a.m. ...	Chala vala.	Plentiful.	.....	.....	F. 4 pies per 100.	Mackerel.
2 p.m. ...	Hemp ...	28	.....	.....	.....	.....
11 a.m. ...	Chala vala.	Plentiful.	.....	.....	.....	Mullan.
4 a.m. ...	Thread ...	98	.....	Full grown.	.....	Shark; cat fish; manthal; mullan.
2 p.m. ...	Hemp ...	25	.....	.....	.....	Shark; skate; cat fish; pala; mackerel.
9 a.m. ...	Chala vala.	Plentiful.	.....	.....	.....	Mullan.
Night ...	Thread ...	186	.....	Full grown; roe in some, not abundant.	F. Rs. 6-4-0; S. Rs. 7-8-0 per 100.	Shark; kora; mackerel; adu.
8 a.m. ...	Oda vala.	200	.....	.....	F. As. 6-6 per 1,000.	Mackerel.
9 a.m. ...	Oda vala.	80	.....	.....	F. As. 7 per 1,000.	.....
4 p.m. ...	Thread ...	234	.....	.....	F. As. 4; S. As. 6 per maund.	Cat fish; kora; mullan.
2 p.m. ...	Thread ...	31	Mud ...	.....	.....	Shark; cat fish; mackerel.
11 a.m. ...	Vakku vala.	569	.....	All young.	.....	Shark; cat fish; mackerel; adu.
11 a.m. ...	Thread ...	134	.....	.....	.....	Shark; cat fish; mackerel; adu; kora.
Noon ...	Thread ...	219	.....	.....	F. Rs. 4 per 6 maunds.	.....

Date.	Yard.	Name of fish.	Distance from shore at which caught.	Depth at which caught.	Weather.
1	2	3	4	5	6
1899.					
23rd Oct. ...	Chowghat ...	C. fimbriata ...	1 mile ...	... ..	Sky clear, sea calm.
23rd Oct. ...	Kurikuzhi ...	C. fimbriata ...	200 yards .	.....	Sky clear, sea calm.
23rd Oct. ...	Mannalan-kannu.	C. fimbriata ...	2 miles ...	Surface ...	Sky clear, sea calm.
24th Oct. ...	Quilandi ...	C. longiceps ...	1 mile ...	Surface ...	Sky clear, sea calm.
28th Oct. ...	Kurikuzhi ...	C. lile ? ...	300 yards .	.....	Sky clear, sea rough.
29th Oct. ...	Quilandi ...	C. longiceps ...	1 furlong.	2 fathoms.	Sky clear, sea calm.
31st Oct. ...	Pudiappu ...	C. longiceps ...	1 mile ...	.....	Sky clear, sea calm.
1st Nov. ...	Badagara ...	C. longiceps .	2-3 miles.	4 fathoms.	Sky clear, sea calm.
1st Nov. ...	Quilandi ...	C. longiceps ...	Less than 1 mile.	4-5 fathoms.	Sky clear, sea calm.
1st Nov. ...	Calicut, North.	C. longiceps ...	$\frac{1}{2}$ mile ...	Surface ...	Sky clear, sea calm.
1st Nov. ...	Tanur ...	Seir (C. guttatum).	6 miles ...	1 fathom.	Sky clear, sea calm.
1st Nov. ...	Ponnani ...	Black pomfret...	8 miles ...	10 fathoms	Sky clear, sea calm.
2nd Nov. ...	Mannalan-kannu.	Seir	20 miles ...	2 fathoms.	Sky clear, sea calm.
2nd Nov. ...	Mannalan-kannu.	White pomfret.	20 miles ...	2 fathoms.	Sky clear, sea calm.
3rd Nov. ...	Chowghat ...	White pomfret.	16 miles ...	2 fathoms.	Sky clear, sea calm.
5th Nov. ...	Edakashiyur.	Seir	11 miles ...	4 fathoms.	Sky clear, sea calm.

DIX—cont.

Time of day at which caught.	Net used.	Catch maunds.	Stomach contents.	Adult or young; milt and roe.	Sale-price.	Other fishes most plentiful.
7	8	9	10	11	12	13
2 p.m. ...	Thread ...	21	Mud ...	All young.	F. 6 pies ; S. 8 pies per 100.	Mackerel ; kora.
3 p.m. ...	Thread ...	41	.....	.....	.....	Mackerel.
1 p.m. ...	Thread ...	48	Mud ...	.....	.....	Shark ; cat fish ; mackerel.
6-9 a.m. ...	Veechil vala.	40	.....	.....	F. As. 8 per 1,000.	.....
1 p.m. ...	Thread ...	43	.....	All young.	.....	.....
3 a.m. ...	.....	200	.....	.....	F. As. 2 ; As. 4 per 1,000.	.....
5 p.m. ...	.....	57	.....	.....	F. As. 5 ; S. As. 5-6 per 1,000.	Mackerel.
6-11 a.m. ...	Veechil and oda vala.	Plentiful.	.....	.....	F. 4 pies per 100.	Shark ; mackerel.
6-9 a.m. ...	Veechil vala.	30	.....	.....	.....	Skate ; mackerel.
2-4 a.m. ...	Veechil vala.	438	.....	.....	.....	Shark ; kora ; mackerel.
2 a.m. ...	Olakal vala.	102	.....	Majority full grown.	F. Rs. 6-8-0 ; S. Rs. 7-8-0 per 100.	Shark ; kanayan.
4 a.m. ...	Vakku vala.	40	Mud ...	Full grown.	F. Rs. 5 ; S. Rs. 7-8-0 per 100.	Shark ; cat fish ; kora ; mackerel.
7 p.m. ...	Vakku vala.	37	Small fish ...	.....	F. Rs. 3 ; S. Rs. 4 per maund.	Mackerel ; charu ; kora ; mullan.
7 p.m. ...	Vakku vala.	43	.....	Full grown.	F. Rs. 2 ; S. Rs. 3 per maund.	.....
2 a.m. ...	Vakku vala.	21	Small fish ...	.....	F. Rs. 4 ; S. Rs. 5 per 100.	Shark ; mackerel.
2 a.m. ...	Vakku vala.	63	Mackerel ...	.....	F. Rs. 2-3-0 ; S. Rs. 3 per maund.	Mackerel ; kora ; cat fish ; para.

Date.	Yard.	Name of fish.	Distance from shore at which caught.	Depth at which caught.	Weather.
1	2	3	4	5	6
1899.					
6th Nov. ...	Tanur ...	Seir	9 miles ...	1 fathom.	Sky clear, sea rough.
7th Nov. ...	Parpangadi ...	Seir	7 miles ...	9 fathoms.	Sky clear, sea calm.
7th Nov. ...	Tanur ...	Seir	7 miles ...	1 fathom.	Sky clear, sea rough.
8th Nov. ...	Quilandi ...	C. longiceps ...	$\frac{1}{2}$ mile ...	Surface.	Sky clear, sea calm.
8th Nov. ...	Parpangadi ...	Seir	7 miles ...	8 fathoms.	Sky clear, sea calm.
8th Nov. ...	Tanur ...	Seir	6 miles ...	1 fathom.	Sky clear, sea calm.
8th Nov. ...	Vadanapalli ...	C. longiceps ...	1 mile ...	4 fathoms.	Sky clear, sea calm.
9th Nov. ...	Parpangadi ...	Seir	7 miles ...	10 fathoms.	Sky clear, sea calm.
9th Nov. ...	Kurikuzhi ...	C. longiceps ...	$\frac{1}{2}$ mile ...	.....	Sky cloudy, sea calm, strong, S. W. wind.
10th Nov. ...	Kurikuzhi ...	C. longiceps ...	$\frac{1}{2}$ mile ...	.....	Sky clear, sea rough.
11th Nov. ...	Parpangadi ...	Seir	7 miles ...	10 fathoms.	Sky clear, sea rough.
12th Nov. ...	Edakazhiyur.	Seir	9 miles ...	2 fathoms.	Sky cloudy, sea calm.
13th Nov. ...	Tanur ...	C. longiceps ...	3 miles ...	Surface ...	Sky clear, sea calm.
13th Nov. ...	Palapatti ...	C. longiceps ...	2 miles ...	Surface ...	Sky clear, sea calm.
15th Nov. ...	Ponnani ...	C. longiceps ...	4 miles ...	5 fathoms.	Sky clear, sea calm.
16th Nov. ...	Tanur ...	C. longiceps ...	5 miles ...	Surface ...	Sky clear, sea calm.
17th Nov. ...	Tanur ...	C. longiceps ...	5 miles ...	Surface ...	Sky clear, sea calm.

DIX—cont.

Time of day at which caught.	Net used.	Catch maunds.	Stomach contents.	Adult or young; milt and roe.	Sale price.	Other fishes most plentiful.
7	8	9	10	11	12	13
2-5 a.m. ...	Olakal vala.		.....	A little milt.	.....	Mackerel.
Midnight.	Hook and odavala.	29	Herrinas ...	.....	.....	Shark; skate; mackerel; para; pala.
3-4 a.m. ...	Olakal vala.	30	Mackerel ...	A little milt.	F. As. 12; S. As. 14 each.	.....
2-5 a.m. ...	Veechil vala.	60	.....	.....	F. As. 2; S. As. 4 per 1,000.	Shark; mackerel.
Midnight.	Odavala.	78	Herrings ...	.....	.....	Pomfret; kora; pala.
1-4 a.m. ...	Olakal vala.	102	.....	A little milt.	F. As. 7; S. As. 7-8-0 per 100.	.....
2-4 p.m. ...	.....	135	.....	.....	F. As. 3-6; S. As. 5, per 1,000.	Mackerel.
Midnight.	Odavala.	27	.....	.....	.....	Shark; skate; pala.
3 p.m. ...	Thread ...	107	.....	Full grown.	F. As. 12; S. As. 1 per maund.	Mackerel.
Noon ..	Thread ...	124	.....	A little milt.	.....	Mackerel.
Midnight.	Hemp net.	23	.....	Mid-sized.	F. As. 8; S. As. 10 each.	Shark; skate; kora.
3 a.m. ...	Vaku vala.	22	Mackerel ...	.....	.....	Shark; pala; mackerel.
4 p.m. ...	Noolu vala.	25	.....	.....	.....	.....
4 p.m. ...	Thread ...	49	.....	.....	F. As. 8; S. As. 12 per maund.	.....
4 p.m. ...	Thread ...	20	F. As. 3; S. As. 5 per 1,000.	Shark; kora; cat fish; manthal; mackerel; adu.
1 p.m. ...	Noolu vala.	41
6 p.m. ...	Noolu vala.	78

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Date.	Yard.	Name of fish.	Distance from shore at which caught.	Depth at which caught.	Weather.
1	2	3	4	5	6
1899.					
18th Nov. ...	Kuttai ...	C. longiceps ...	2½ miles ...	Surface ...	Sky clear, sea calm.
18th Nov. ...	Blangad ...	C. longiceps ...	6 miles ...	2 fathoms.	Sky cloudy, sea calm, S. W. wind.
18th Nov. ...	Veliyangode...	C. longiceps ...	3 miles ...	Surface ...	Sky clear, sea smooth.
19th Nov. ...	Kurikuzhi ...	C. longiceps ...	200 yards.	.....	Sky clear, sea rough.
20th Nov. ...	Kurikuzhi ...	C. longiceps ...	500 yards.	.....	Sky clear, sea rough.
20th Nov. ...	Edakazhiyur.	C. longiceps ...	4 miles ...	3 fathoms.	Sky clear, sea smooth.
22nd Nov. ...	Tanur ...	C. longiceps ...	5 miles ...	Surface ...	Sky clear, sea smooth.
28th Nov. ...	Calicut, North.	Seir ...	10 miles ...	3 fathoms.	Sky clear, sea smooth.
30th Nov. ...	Calicut, North.	Seir ...	9 miles ...	3 fathoms.	Sky clear, sea smooth.
30th Nov. ...	Chowghat ...	C. longiceps ...	2 miles ...	4 fathoms.	Sky clear, sea smooth.

DIX— cont.

Time of day at which caught.	Net used.	Catch maunds.	Stomach contents.	Adult or young; milt and roe.	Sale price.	Other fishes most plentiful.
7	8	9	10	11	12	13
4 p.m. ...	Rope net.	102	.....	.....	F. As. 5-6; S. As. 7-6 per maund.	Shark; skate; mackerel; kora.
1-4 p.m. ...	Thread ...	123	.....	.....	.....	Shark; para; kora.
4 p.m. ...	.....	156	.....	.....	.....	.....
1 p.m. ...	Thread ...	69	.....	.....	F. As. 5-6 S. As. 8 per 1,000.	Mackerel.
2 p.m. ...	Thread ...	69	.....	.....	.....	.....
4 a.m. ...	Thread ...	26	.....	.....	F. As. 6; S. As. 10; per maund.	Mackerel; kora.
4 p.m. ...	Rope net.	102	.....	.....	.....	Shark; skate; mackerel; kora.
6 a.m.—4 p.m.	Oda vala.	31	Mackerel ...	.....	Rs. 40 per 100.	Mackerel (503 maunds).
10 a.m.—4 p.m.	Oda vala.	25	Mackerel (615 maunds).
3-5 p.m. ...	Thread ...	38	F. 6 piee; S. 10 piee per 100.	Mackerel.

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ANTHROPOLOGY.

NÂYARS OF MALABAR.

With Eleven Plates.

BY

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PREFATORY NOTE.

FOR the benefit of those who have not seen the first article of this series of notes on some of the people of Malabar, I wish to repeat that it is an "attempt to describe the people as they actually are, and not as they are supposed to be in the books on Hinduism, which, for the most part, tell us of *Hinduism as it is not* in Southern India. Books have not been consulted or used anywhere, except where the fact has been notified." It is a product of original work during three years and-a-half spent in Malabar. My thanks are offered to the many gentlemen, natives of Malabar, who have in the kindest manner helped me—Mr. M. Krishnan (Malayalam Translator to Government), Messrs. O. Vasava Menon, C. P. Raman Menon, U. Balakrishnan Nayar, M. Raman Menon, T. K. Gopal Panniker, T. Kannan, Achutan Nayar, and many others. Also I have to thank Mr. Badcock of Tellicherry for assistance. The proofs have been through the hands of several Nayars, and every precaution has been taken to ensure accuracy of facts.

F. FAWCETT.

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THE NÂYARS OF MALABAR.*

It is likely that some of the gentle readers of this monograph are not familiar with "The Lusiad," the epic poem of Luis de Camoens, the restless soldier-poet who sailed with a detachment of the Portuguese for the West Coast of India in 1553. Voltaire, who is not given to redundant praise of anybody, styles him the Portuguese Virgil. At any rate he has written a fine epic, and from it I will quote a few lines concerning the Nâyars, with whom he came in personal contact three and-a-half centuries ago.

"Polias the labouring lower clans are named;
"By the proud *Nayres* the noble rank is claimed;
"The toils of culture and of art they scorn,
"The warrior's plumes their haughty brows adorn;
"The shining faulchion brandish'd in the right,
"Their left arm wields the target in the fight;
"Of danger scornful, ever armed they stand
"Around the king, a stern barbarian band."†

A former Governor of Bombay, Johnathan Duncan by name, who visited Malabar in 1792-3, has anticipated me in quoting some of these lines, and with regard to them he observes: "These lines . . . contain a good description of a Nayar, who walks along, holding up his naked sword with the same kind of unconcern as travellers in other countries carry in their hands a cane or walking staff. I have observed others of them have it fastened to their back, the hilt being stuck in their waist band, and the blade rising up and glittering between their shoulders."‡

The Nâyars, the Nareæ of Pliny, (Nat. Hist. VI, 21), were the swordsmen, the military caste of the west coast of India. There are some small sects or castes intervening, but broadly speaking the Nâyars rank after the Nambûtiris in Malabar, and they occupy the same position in the Native States of Cochin and Travancore. According to the Census

* The first article of this series was in Bulletin, Vol. III, No I, where the Nambûtiri Brahmins of Malabar were described.

† Mickle's Translation, London, 1798.

‡ Logan's "Manual of Malabar," page 137.

Report, 1891, they numbered 377,828 in Malabar. The figures found in this useful document offer an instance of the unreliability of casual observation. The author of "A Manual of Malabar Law" describes the peoples of Malabar to some extent, and in his Introduction says: "The Nâyars constitute the major portion of the Malabar population." One hears of Malabar as the land of the Nâyars, as if its inhabitants were all Nâyars. Certainly they may be said to form the most distinguishing feature of the district; but, when we seek in the spirit of accuracy, we find the surprising fact that they number but 14·2 per cent. of its population.

The chief immediate interest attached to them lies in the fact of their being the best, that is the fullest, the most complete existing example of matriarchy, or, to be more strictly accurate, of inheritance through females. This system, obtaining at one time amongst the Celts and other races of Europe, was probably universal in the sense that it existed at some period in the life history of every race of mankind, and is now to be found here and there in the world.

That inheritance through females was once the rule in Southern India is fairly obvious. Amongst others the Maravars, who are, so far as we can surmise at present, aborigines in the sense that we know of no earlier inhabitants in the part of the peninsula occupied by them, to this day offer strong proof of this. I refer to the genuine Maravars—the Kondayan Kottai Maravars of Tinnevely—and not to the offshoots settled in Trichinopoly and elsewhere, who have almost entirely forsaken all the customs of their fathers.* Amongst the Maravars the girl on marriage joins the sept of her husband, but she retains her own sept name, and her children are of *her* sept; not of their father's. Marriage between persons of the same sept name is prohibited; and this is regulated solely through the mothers. The tribe is endogamous; but the septs within it are exogamous. Thus, a man or a girl cannot marry any one of the same sept, having the same sept name (which is inherited through their mother), and *must* marry some one within the tribe but of a different sept to his or her own — of his father's sept or any other. Though property

* Most of the cigar makers of Trichinopoly are Maravars in origin. Their names ——— Naidu, ——— Pillay, and so on are borrowed from people of higher castes.

devolves through the men, the degrees between which marriage is prohibitive are inherited through the women.*

But the circumstance that inheritance through women was once, perhaps, the rule in Southern India cannot be accepted as of itself proof that the Nâyars are identical with the Dravidians, as the people of Southern India are commonly called. It is not yet time to say whether they are or are not. To the ordinary visitor their outward appearance, customs, habitations, mode of life generally, are very different from what he sees in the Telugu or Tamil countries; for Malabar, "the west coast," is as unlike the rest of the Presidency as Burma. The only other district of the Madras Presidency which resembles Malabar, is Ganjâm, more particularly the northern part of it, where the people are almost entirely Aryan. The resemblance between these, the Uriyas of Gumsoor and thereabouts, a fine fighting stock, and the Nâyars of Malabar is very striking. It is not, perhaps, a mere coincidence that in these two furthest remote corners of the Presidency alone, the people at large are to be seen wearing umbrella hats to protect them from the sun.

The Nâyars are divided into clans, (we will call them clans for want of a better term), many of which intermingle through marriage, but some of them are endogamous. The precise number of these clans cannot be given, as it is disputed whether certain of them have a right to belong to the cognate Nayar body. The names of the clans which have come directly under my measuring instruments are these :—

Kiriyattil.

Sûdra.

Kurup.

Nambiyâr.

Urâli.

Nalliôden.

Viyyûr.

Akattu Chârna.

Purattu Chârna.

Vattakkâd.

Vangilôth.

Kitâvu.

Pallichan.

Muppathinâyiran.

Viyâpâri or Râvâri.

Attikkurissi.

Mânavallan.

Vengôlan.

Adungâdi.

Adiôdi.

Âmayengolam.

* An example of this custom existing in another land may be quoted here from a modern book—'The Caroline Islands,' by F. W. Christian, 1899: "Descent is traced through the mother—a custom tolerably common amongst the Oceanic races in general. Members of the same tipu or clan cannot marry." (Page 74.)

This list is not in order of priority.

The Kurup, Nambiyâr, Viyyûr, Mânâvallan, Vengôlan, Nelliôden, Adungâdi, Kitâvu, Adiôdi, Âmayengolam, all superior clans, belong, properly speaking, to North Malabar. The Kiriyaṭṭil, or Kiriyaṃ, said to be derived from the Sanskrit *graham*, a house (a doubtful derivation) is the highest of all the clans in South Malabar, and is supposed to comprise or correspond with the group of clans just named of North Malabar. In the old days every Nâyara chief had his Chârnavara, or adherents. The Purattu Chârna are the *outside* adherents, or the fighters, and so on, and the Akattu Chârna are the *inside* adherents—clerks and domestics. The clan from which the former were drawn is superior to the latter. The Ūrâli are said to have been masons; the Pallichans, mancheel * bearers.†

The Vattakkâd clan, whose proper métier is producing gingelly or cocoanut oil with the oil mill, is the lowest of all excepting, I think, the Pallichan. Indeed, in North Malabar, I have frequently been told by Nâyars of the superior clans that they do not admit the Vattakkâd to be Nâyars, and say they have adopted the honorific affix "Nâyara" to their names quite recently. It seems rather odd that this clan, or at any rate one sub-clan of it is almost the tallest and has the finest nasal index, being the only clan whose nasal index is finer than that of the Nambûtiri.

Union by marriage, or whatever the function may be called, is permissible between most of the other clans, the rule which was noticed already under "Nambûtiris" ‡ by which a woman may never unite herself with her inferior, being always observed. That is, she may unite herself with a man of her own clan or with a man of any superior clan, or with a Nambûtiri, an Embrântiri or any other Brâhmana, or with one of the small sects coming between the Brâhmanas and the Nâyars, but she cannot under any circumstances unite herself with a man of a clan which is inferior to hers. Nor can she eat with others of a clan inferior to hers. A man may, and does without restriction. Her children, by an equal in race and not only in mere social standing, but never by one who is racially inferior, belong to *her* Taravâd.

* A mancheel is a conveyance carried on men's shoulders, more like a hammock *stung* on a pole, with a flat covering over it, than a palankeen. The palankeen is unknown in Malabar.

† There is in the Cochin state a clan, Elâyadan, which is practically equal in status to the Nambûtiri.

‡ Madras Government Museum Bulletin, Vol. III, No. 1.

The children of the inferior mothers are never brought into the Taravád of the superior fathers. That is, they are never brought into it to *belong* to it. But they may live there. And where they do so, they cannot enter the Taravád kitchen or touch the women while they are eating. Nor are they allowed to touch their father's corpse. They may live in the Taravád, under these and other disabilities, but they are never of it.

It will be as well to avoid here a possible error that may have arisen from the statement that most of the clans may intermingle. Those of the same clan name may marry. The Nâyars of North Malabar are held to be superior all along the line, clan for clan, to those of South Malabar, which is divided from the north by the river Korapuzha, 7 miles north of Calicut; so that a woman of North Malabar would not unite herself to a man of her own clan name of South Malabar. There will be more to say on the point when we come to "Marriage." A Nayar woman of North Malabar cannot pass northward beyond the frontier; she cannot pass the hills to the eastward; and she cannot cross the Korapuzha to the south. It is tabu. To the west is the sea. The women of South Malabar are similarly confined by *custom*, breach of which involves forfeiture of caste. To this rule there is what appears to be an exception, and this exception is now, having some slight effect, since of late years the world has come in touch with the Malayâli who now-a-days goes to the University, studies medicine and law in the Presidency town or even in far off England. It is that women of the relatively inferior Akattu Chârna clan are not under quite the same restrictions as regards residence as are those of most of the other clans; so in these days of free communications when Malayâlis travel and frequently reside far from their own country, they often prefer to select wives from this Akattu Chârna clan. This may have some effect on the status of the clan.

But the old order changeth everywhere, and now-a-days Malayalis who are in the Government service and obliged to reside far away from Malabar, and a few who have taken up their abode in the Presidency town, have wrenched themselves free of the bonds of custom, and taken with them their wives who are of clans other than the Akattu Chârna. But this is more new fangled than orthodox. The interdiction to travel, and the possible exception to it in the case of the Akattu Chârna women, has been explained to me

in this way. The Nāyar woman observes pollution for three days during menstruation. While in her period she may not eat or drink with any other member of the Taravād, and at the end of it, that is on the fourth day, she must be purified. Purification is known as "mattu" (change), and it is effected by the washerwoman who, in some parts of South Malabar, is of the Mannan or Vannan caste (whose *métier* it is to wash for the Nāyars and Nambûtiris), but who is, as a rule, the washerwoman of the Tiyan caste, giving her, after her bath, *one of her own* clean cloths to wear (which is called mattu, change of raiment) instead of the soiled cloth which she takes away to wash. Pollution, which may come through a death in the family, through child birth, or menstruation *must* be removed by "mattu." There is no avoiding it.* Until it is done, and it *must* be done on the fourth day, the woman is out of caste. It must be done in the right way at the right moment under pain of the most unpleasant social consequences. How that the influential rural local magnate wreaks vengeance on a Taravād by preventing the right person giving "mattu" to the women is well known in Malabar. He could not with all the sections of the Penal Code at his disposal inflict deeper injury. Now the Nāyar woman is said to feel compelled to remain in Malabar, or within her own part of it, in order to be within reach of "mattu." My informant here tells me that the Vannan caste being peculiar to Malabar, the Nāyar women cannot go where these are not to be found; and that "mattu" must be done by one of that caste. But this is not the rule. I know from my own observation in the most truly conservative localities, in Kurumbranād for instance, where the Nāyar has a relative superiority, that the washerman is as a rule a Tiyan; and I cannot but think that the interdiction has other roots than those involved in "mattu." It does not account for the superstition against crossing water which has its counterparts elsewhere in the world. As bearing on this point I may mention that the Nāyar women living to the east of Calicut cannot cross the river-back-water and come into the town.

The Zamorin is the over-lord of the Akattu Chârna clan, and with the decline of his power and influence, it may be that the women of it have latterly taken more liberty than was formerly possible.

* More will be said on this point when we come to describe the Tiyans.

The Sûdra clan, one of the best, supplies the women servants in the Nambûtiris' houses.

We will now pass to a consideration of the physical measures of some of the clans—men, not women unfortunately. It was impossible to measure the women.

Here are given the averages of the various measures of 186 Nâyars—

25 Kiriattil.	✓25 Vattakkâd.
25 Urâli.	✓25 Purattu Chârna.
✓8 Kurup.	✓25 Akattu Chârna.
✓22 Nambiyâr.	25 Sûdra.

Note.—Group A, a non-descript group of a few individuals of eight different clans (see "Nambûtiris"—Bulletin, Vol. III, No. I, page 10) is not included here for obvious reasons.

Each index given is the mean of the indices—

	Average of 186 Nâyars.
Stature	165.6
Height, sitting	84.9
Do. kneeling	122.4
Span	175.1
Chest	80.6
Shoulders	40.0
Left cubit	46.2
Left hand, length	18.5
Do. width	8.3
Left middle finger	11.0
Hips	26.0
Left foot, length	25.4
Do. width	8.8
Cephalic length	19.2
Do. width	14.1
Do. index	73.1
Bigoniac	10.4
Rizygomatic	13.1
Maxillo-zygomatic index	80.1
Nasal height	4.8
Do. width	3.6
Do. index	76.8
Vertex to tragus	13.1
Do. to chin	19.7
Middle finger to patella	10.1

The physical characteristics of each clan separately will be given first. This table will enable us to see at a glance how the measures of any particular clan differ from those

of the average Nāyar ; also how the averages compare with the Nambūtiri.

But, before doing this, we will exclude the endogamous clans—the Ūrāli (wholly endogamous) and the Vattakkād (partly endogamous), and take the averages of all the others. It will be observed that exclusion of these two, who are each units apart from each other, and the first from all the others here dealt with, leaves the averages of all those who intermingle much the same as before, when the Ūrāli and Vattakkād were included. It cannot be said that exclusion of these two bring the measures of the others any nearer to those of the Nambūtiri, whose blood is in constant process of mixture with the others, but not at all with the Ūrāli and not much with the Vattakkād. It must, however, be remembered that there are about 39 Nāyars to every Nambūtiri in Malabar, and that the latter does not waive his opportunities to disperse his favours amongst the Nāyar ladies.

The Ūrāli and the Vattakkād are not the only clans wholly or partly endogamous, but they are the only clans wholly or partly endogamous which have been examined thoroughly by me. The Attikkurissi clan is also endogamous, and there may be others.

Note.—Individuals in the constabulary are excluded from all the tables, their measures being as a matter of course above the averages for their caste or clan.

	Averages of 136 Nāyars, Vattakkād and Ūrāli excluded.				
Stature	165.7.
Height, sitting	85.1
Do. kneeling	122.7
Span	175.3
Chest	80.4
Shoulders	40.0
Left cubit	46.2
Left hand, length	18.6
Do. width	8.0
Left middle finger	10.9
Hips	25.9
Left foot, length	25.5
Do. width	8.8
Cephalic length	19.3
Do. width	14.1

Average of
136 Nâyars,
Vattakâd
and Urâli
excluded.

Cephalic index	..	..	..	..	72.9
Bigoniac	..	..	..	..	10.4
Bizygomatic	..	..	..	..	13.0
Maxillo-zygomatic index	..	..	..	..	80.0
Nasal height	..	..	..	..	4.8
Do. width	..	..	..	..	3.7
Do. index	..	..	..	..	77.6
Vertex to tragus	..	..	..	..	18.1
Do. to chin	..	..	..	..	19.7
Middle finger to patella	..	..	..	..	10.0

KIRIATTIL NÂYARS.

Ages ranging between 22 and 52.	Maxi- mum.	Mini- mum.	Aver- age of 25.	To stature = 100.	Remarks.
Stature, height	175.2	155.1	165.3	...	
Height, sitting	99.7	80.4	84.3	51.0	
Do. kneeling	129.5	113.8	122.0	73.8	
Span	186.0	160.4	174.3	105.4	
Chest	87.6	75.0	78.2	47.3	
Shoulders	42.8	37.7	39.4	23.8	
Left cubit	47.8	42.7	45.9	27.8	
Left hand, length	19.5	16.6	18.3	11.1	
Do. width	8.6	7.6	8.2	44.3	To left hand, length = 100.
Left middle finger	11.5	9.1	10.7	57.8	To left hand, length = 100.
Hips	27.9	24.4	26.0	15.7	
Left foot, length	26.8	23.2	25.3	15.3	
Do. width	9.8	8.0	8.8	13.9	
Cephalic length	20.1	17.5	19.0	11.5	
Do. width	14.6	13.3	13.9	...	
Do. index	80.0	69.0	73.1	...	
Bigoniac	11.3	9.1	10.4	...	
Bizygomatic	14.1	12.2	13.0	...	
Maxillo-zygomatic index.	84.8	73.4	80.1	...	
Nasal height	5.1	4.2	4.7	...	There are 8 whose nasal height is 5 and over.
Do. width	4.4	3.3	3.7	...	
Do. index	102.3	66.7	78.8	...	
Vertex to tragus	14.4	12.0	12.9	7.8	
Do. to chin	20.8	17.5	19.2	11.6	
Middle finger to patella.	14.7	5.5	9.7	5.86	

Face.—Supraciliary arches prominent in two. Face of one distinctly pyramidal ; in two others it was rather so.

In one the broadest part of the head was immediately behind the ears, low down.

Figure.—Fifteen are noted slight, four as slight to medium, five as medium. Two were marked as powerfully built.

Hair.—An oval patch of hair on the vertex remains ; the rest of the head, the face and body are always shaved. A moustache is never worn. The men are always clean shaven except during mourning for a near relative, when the razor is not used for a year. The hair on the vertex is allowed to grow long, and well treated with oil, looks glossy and black, is tied in a knot which hangs over the forehead or to one side of the head at the pleasure of the wearer. As a rule the hair on the head is plentiful and wavy, while in a few it is very thick. About 20 per cent. of those examined had scanty hair on the head. The following facts were recorded :—

A man of 50 had a few gray hairs.

A man of 49 had hair distinctly gray : on the face, white when sprouting.

A man of 52 had a few white hairs on the sternum ; not on the head.

Baldness is uncommon ; and, though old age does not overtake them too early, it has been noted that one man of 40 looked about 60.

Gingelly oil is commonly used for the hair, but its use for the hair is said by some to have certain effects on the body. One man said he used cocoanut oil because, if he used the other, he would get boils all over his body and suffer from headaches. It is usual to oil the head profusely during the month Karkadagam * “ in order to cool the body.”

Hair on the chest and arms.—As a rule the growth is slight to very slight in 14 out of 25, while in the remaining 11 it is moderate.

On the legs.—In 20 per cent. it was slight ; in the rest moderate or thick.

Note.—Men never shave themselves. With the exception of the oval patch on the crown of the head, about $7\frac{1}{2}$ inches long and $5\frac{1}{2}$ inches wide where the hair is allowed to grow long, all hair on the head, face, chest, abdomen, armpits, wrists and about the pubes is shaved by the barber. The back is not shaved, nor the legs : the arms sometimes, but not always. A few do not shave the chest.

* During the rains.

Nāyar women of all classes shave the hair about the vagina. They shave themselves, standing, placing one foot on a bench or anything a couple of feet or so from the ground, thus raising the leg. The use of scissors for this purpose is rare, new fangled and not sanctified by custom. In a few houses now-a-days razors of English or German manufacture are kept for the use of the women; but according to general custom the barber woman pays periodical visits, and the women of the house receive from her a razor, with which they shave themselves. The armpits, the eyebrows and stray hairs on any other part of the body, excepting of course the head, are shaved by the barber woman. I have it an excellent authority that some of the elderly women—possibly those who are old and fleshy—submit their entire person to the barber woman's razor. The young women never.

In the Tamil country the women, as is well known, use a depilatory. Possibly the Nāyar women resort to shaving in order to avoid the unpleasant odour of the depilatory. The reason for shaving or destroying the hair on that part of the body is not apparent. No reason is assigned for it. Very likely the custom arose out of necessities for cleanliness, when the Nāyars were not the clean people they are now, and like all customs has persisted aimlessly.

Colour of the skin.—Using Broca's colour tables. The darkest was as No. 43 (one only); the fairest, 44 to 30. Two others were fair or very nearly so. The colour number for 5 was 37; for 5 was 28; for 13 was 29, and lighter. Darker than the Nambūtiri. The women, who are not so much exposed to the sun, are distinctly fair as well as well favoured. Many are very handsome.

Colour of the eyes.—Out of 20 individuals (using Broca's colour tables for the eyes), in 13 the number corresponding to their eyes was 2, while in 7 it was 1 to a little lighter. So that the eye is, as a rule, brown; rarely black.

Ornaments, men.—Not much jewellery is worn. One or two golden earrings called kadukkans are worn, as a rule, in each ear by those who can afford to do so. Some of the members of this clan who call themselves "Paḍināyirattil"—"one of 10,000"—doubtless a relic of the old Nāyar military system, pierce the ears, but never wear earrings. The title of the hereditary chief of these is Ayyāyira Prabhu Karttāvu. The 10,000 do not, however, all belong to this clan. I came across a man of the Nambiyār clan who belonged to it, and he too could not wear earrings. Rings and amulets are also worn commonly.

One individual wore 2 golden earrings, of the pattern called kadukkan in each ear.

One individual wore two rings made of an amalgam of gold and copper, called "tambāk" in the vernacular, on the ring finger of the right hand, for good luck. "Tambāk" rings are lucky rings. It is a good thing to wash the face

with the hand on which is a "tambák" ring. I see in my notes a record of an individual who wore one of these rings on the second finger of the left hand. They are common.

One individual wore two rings of the pattern called *trilôham* (lit: metals) on the ring finger of each hand. Each of these rings was made during an eclipse!

One individual wore a silver bangle as a vow. It was to be given up at the next festival to be held at a place called *Kottiôre*, a famous festival in North Malabar, the scene of it being far away in the forest under the hills. He also wore a "tambák" ring on the ring finger of the right hand for luck; and a thin iron ring on the ring finger of the left hand.

One individual wore no jewellery, but there was a small circular tattooed spot in the centre of the forehead over the glabella. Tattooing is not common. This individual is the only one of those examined who was tattooed.

Women.—The style of the jewellery worn by the women will be seen in the *plate*. It is altogether unlike any other South Indian jewellery. The necklaces are almost identical in form, shape and general character with those of Sindh. Silver is never worn.

The lobes of the ears are dilated in childhood generally in the sixth month and in them are worn large spiral rings of white metal or the more solid "tôda," really a handsome ornament, in the groove of which the elongated ear-lobe is almost concealed. It is made of gold. Properly speaking the *tôda* is an ornament worn exclusively by the *Nâyar* women. Several necklaces are often worn at the same time. The Venetian sequin, which probably first found its way hither in the days of Vasco da Gama and Albuquerque, is one of those coins which, having found favour with a people, is used persistently in ornamentation long after it has passed out of currency; thus illustrating the well-known thesis that things originally made for use, by and by pass into ornament. There are instances of this use of coins in Europe, of course, as amongst the Swabian peasantry. So fond are the Malayalis—those of Malabar, Cochin and Travancore—of the sequin that to this day there is quite a large trade in imitations of the coin for purposes of ornament. Such is the persistence of its use that the trade extends to brass and even copper imitations of the sequin. The former, brought from Europe, are often seen to bear the legend "made in Austria." The *Nâyars* wear none but the gold, "mounted" as they call it, (the mounting being



AKATTU CHARNA NAYAR. FATHER A NAMBUTIRI.

much as the upper portion of one section of the necklace, in the plate), strung together through the mounting just as the necklace : a very effective ornament for the neck. The brass imitations of the sequin are worn by the women of the inferior races of whom we shall have some description hereafter. If one asks the ordinary Malayali, say a Nayar, what persons are represented on the sequin, one gets for answer that they are Rama and Sita ; between them a cocoanut tree !

Turkish coins, French half louis, and German 10 mark pieces are also used in the same way, each one being known by a distinctive vernacular name, and no corruption of its nomenclature in European coinage, so that it is always easy to identify one of these coins by its vernacular name. For instance, every Malayali knows what an "Ámáda" is : it is what we know to be a real or imitation Venetian sequin.* The half louis of the empire is known as the "pakshikkas," probably from the eagle on the reverse. And so on.†

Ornaments are never worn on the ankles or on the waist, as is the rule in other parts of Southern India.

Dress, men.—This is very simple ; ordinarily one cloth round the loins, the ends overlapping a foot or two in front. It is not tucked between the legs, which is the fashion practically all over India, but hangs straight to the ground. It should touch the ground, or very nearly do so. Wearing a cloth in such fashion carries with it dignity to the wearer. A Tiyan, or a man of any inferior caste, is not supposed to wear his cloth below his knees. Now-a-days, when there is a general levelling up, the inferior races occupying a position

* I have never heard any explanation of the word Ámáda in Malabar. The following comes from Tinnevely: " Ámáda was the consort of Bhagavati and he suddenly appeared one day before a Shánár (the caste devoted to climbing the palms and drawing off the juice) and demanded food. The Shánár said he was a poor man with nothing to offer but toddy, which however he gave in a palmyra leaf. Ámáda drank the toddy and performing a mantram over the leaf it turned into gold coins which bore on one side the pictures of Ámáda, the Shánár and the tree; and these he gave the Shánár on a reward for his willingness to assist him. This explains the two names—Sh nar caste (as they are called in Tinnevely, but where they are not very common), and Ámáda."

† It is scarcely right to say any of these coins, even the sequin, is not current. The value of each is known everywhere to a nicety. It must be remembered that throughout Malabar copper coins of the English and Dutch East India Companies, of Mysore, and of almost every former dynasty of South India are to be found amongst the coins actually current with the people, while in the rural parts reckoning is always in fanams: not in annas.

they never held before, when people speak of caste as if it were a fanciful arrangement of the social fabric which it would be an excellent thing to destroy, forgetting that, fundamentally, it rests on racial differentiation, we see those of castes inferior to the Nāyar wearing their cloths to the ground—in the towns that is, where the sway of modern officialdom and education is felt. But, were a man of inferior caste to wear his cloth to the ground, away out in the district where the old order has not changed much, he would soon be made to repent having done what is believed to be an infringement of the privileges of the Nāyar. He would probably be well beaten, and might have his house burnt. The single cloth (mundu) constitutes the ordinary dress. No turban is worn. It is wrong for a Nāyar to cover his head. But he may use an umbrella, and invariably does so when walking in the sun, for he is very susceptible to its rays. The cloth must be fastened at the waist in a certain way. Those of every caste tie or fasten their cloth round the loins in a certain way; people of no two castes tie the cloth alike.

Women.—A short cloth is worn somewhat tight round the loins, and over it is worn another cloth from the waist to below the knee. Nothing is worn above the waist. When one sees women of the Nāyar caste on the roads (they are *never* to be seen in the towns), or at the festivals or other large gatherings, they are wearing a cloth loosely covering the upper portion of the body. In Malabar, where there is prevalent the idea that no respectable woman covers her breast, there has crept in lately, chiefly amongst those who have travelled, a feeling of shame in respect of this custom of dress. Dress is, of course, a conventional affair, and it will be matter for regret should false ideas of shame supplant those of natural dignity such as one sees expressed in the carriage and bearing of the well-bred Nāyar lady.

It will be most convenient to deal with the Nāyars as a body under such heads as marriage, customs, etc. Here we are concerned mainly with physical measures and general appearance, under which come dress and ornament. What has been said about dress may be taken as descriptive of all the clans. Before leaving the Kiriattil Nāyars it will be well to note the names of some of those actually measured.

Nāyar is affixed as an honorific after the name. Thus one whose name is Gōvindan is called Gōvindan Nāyar.



AKATTU CHARNA NAYAR. FATHER A NAMBUTIRI.

Taravâd name.	Name.	Occupation.	Age.
Manjôli ...	Gôvindan ...	Domestic servant ...	30
Kêdôth ...	Karunâkaran ...	Milk seller ..	34
Ohuliotkolođi ...	Ithapu ...	Cultivator ...	32
Puliakôth ...	Kêlu ...	Do. ...	37
Kurunthal ...	Narrâinan ...	Do. ...	35
Kashaparambath ...	Shankaren ...	Do. ...	32
Etalatandiel ...	Kêlu ...	Servant ...	23
Thanikât ...	Cherukutti ...	Do. ...	25
Thattatath ...	Chekkunni ...	Peon ...	35
Nambidivittil ...	Kunhunni ...	Cultivator ...	50
Nadaviladatha ...	Chandukutti ...	Do. ...	25
Tuthenvittil ...	Vêlu ...	Writer ...	24
Thekakamukal ...	Râmuni ...	Cultivator ...	23
Kulangarathathil ...	Kannan ...	Do. ...	37
Kîzhukalangot ...	Gôvindan ...	Do. ...	25
Pitôli ...	Râmuni ...	Do. ...	36
Puliakôth ...	Kôman ...	Do. ...	25
Edakapura ...	Rârappan ...	Peon ...	46

There seems to be a distinct or specific name for every garden, every acre of land in Malabar, whether in the forest or cultivated, whether enclosed or not. We shall hear of this again when we come to speak of the jungle people, some of whom change their name, their *house* or Taravâd name, as they change their residence from one place to another, always calling themselves after the land on which they are at the time living. Others again cling to the name which is that of the land whence the family has sprung, so to speak.

That the Taravâd name of the Nâyar is that of the land is tolerably evident. Contrary to the rule in Southern India there is, in Malabar, absolute proprietorship of land; and the land, the family house built on it, the land wherein lie the ashes of the ancestors, and the family itself are all included in the meaning of the word Taravâd.

ÛRÂLI NÂYARS: ENDOGAMOUS.

Ages ranging between 20 and 45.	Maximum.	Minimum.	Averages of 25.	To tature =100.	Remarks
Stature ...	180·8	152·2	163·1	...	* 120·75
Height, sitting ...	89·9	79·1	84·2	51·6	
Do. kneeling ...	135·3	113·3	* 120·8	74·0	
Span ...	193·0	161·7	171·3	105·0	
Chest ...	88·0	77·4	81·2	49·8	
Shoulders ...	43·7	36·8	39·7	24·3	
Left cubit ...	51·4	41·6	45·2	27·7	

ŪRĀLI NĀYARS—*cont.*

Ages ranging between 20 and 45.	Maximum.	Minimum.	Averages of 25.	To stature = 100.	Remarks
Left hand length ...	20.5	17.0	17.8	10.9	* There were 6 of 5.0 and over.
Do. width ...	8.8	7.5	7.9	...	
Left middle finger ...	12.2	9.6	10.7	...	
Hips ...	29.6	23.7	26.0	15.9	
Left foot length ...	28.3	23.7	24.7	15.1	
Do. width ...	9.8	8.2	8.7	...	
Cephalic length ...	20.4	17.5	19.2	11.8	
Do. width ...	15.0	13.4	14.0	...	
Do. index ...	79.0	68.2	72.9	...	
Bigoniao ...	11.1	10.0	10.5	...	
Biszygomatic ...	13.7	12.2	13.2	...	
Maxillo-zygomatic index.	84.8	74.1	80.6	...	
Nasal height ...	* 5.3	4.1	4.8	2.94	
Do width ...	4.0	3.2	3.6	...	
Do. index ...	84.4	65.4	75.5	...	
Vertex to tragus ...	14.2	11.9	12.9	7.9	
Do. to chin ...	21.2	18.4	19.9	12.2	
Middle finger to patella.	18.7	7.1	11.5	7.06	

Face.—Among the descriptive notes of individuals made when measuring them are these :—

(1) Supraciliary arches, slight. Nasal notch. Chin recedes slightly. Chin square with slight hollow in front.

(2) Nasal bone slightly raised. Nasal notch moderate. Supraciliary arches ditto. Chin pointed.

(3) Head pyramidal. Thick flabby nose. Nasal bone slightly raised.

(4) Forehead moderately high and straight. Supraciliary arches slight. Nasal notch. Nose straight; very slight prognathism. Chin recedes.

(5) Forehead high. Supraciliary arches marked. Lips thick. Nasal notch. Nasal bone slightly raised. Ears small.

(6) Protuberance over the right ear. Forehead markedly prominent. No nasal notch.

As a rule the nose is straight, or the nasal bone is slightly raised. In some cases the nasal notch is deep.

In one individual the broadest part of the head was just above the ear.

In another, the alæ of the nose appear to have become enlarged through taking snuff.

In another, the point of the ear (noticed by Darwin) in the helix $\frac{1}{2}$ from the top, was very marked.

One individual of 29 looked at least 40. He had suffered severely from small-pox.

Figure.—The average is slight to medium. One is noted as stout, and another as very strongly built.

Hair.—It has been noticed already (see Nambûtiris. Bulletin, Vol. III, No. I) that the growth of hair on the cheeks is a racial characteristic. In some of the lower races it is entirely absent, while in the Nambûtiris it is constant. About half the Urâli Nâyars examined had a regular growth of hair on the cheeks.

On the head.—In all but one the hair on the head, invariably black and glossy, was thick and wavy; in a few, it was very thick or fairly so; and, in the case of three individuals, it was noted as curly. A few grey hairs were noticed in four individuals aged respectively 25, 29, 30, 45; and one young fellow of 20 had a small patch of white hair over the right eyebrow.

Hair on the chest was slight to moderate as a rule, but in 4 individuals it was thick.

Hair on the arms was observed to be slight in 13, and moderate or thick in 12.

In all, the hair on the legs varied between moderate and thick, excepting that in 2 the growth was very thick. One man had shaved his feet, and another had shaved the backs of his hand and his wrists. In a few there was a tolerably thick growth of hair in the small of the back. This is common to all the Nâyars.

Colour of the skin.—In 22 cases in which this was recorded the darkest was No. 43 (Broca's colour types) and the fairest No. 40. Twelve individuals were of No. 29 or fairer, and this (a little fairer than 29) seems to be about the average. A little darker than the Kiriattil.

Colour of the eyes.—8 individuals were of No. 2 (Broca); 6 individuals were of No. 1; 6 individuals between 1 and 2.

Ornaments.—A few of those examined said that men of the clan never wore earrings, though their ears were pierced. There may be some section of the clan who do not; but, as a

rule, earrings are worn by those who can afford them. One man indeed said he never wore them, fearing thieves might steal them. Another wore silver earrings called *kalluvechoha kadukkan* which means an earring set with stone (*pushyarâgam*—topaz).

(1) Three plain golden rings on ring finger of left hand, the same on the little finger of the same hand, and a thin iron ring on the ring finger of the right hand.

(2) Sandal paste patch over glabella; four stripes of the same on chest; three vertical stripes on each upper arm.

(3) Three golden earrings—the usual *kadukkans*—in each ear. An amulet in a silver cylindrical case worn on the waist. Inside the case is a charm written on a copper leaf. It is to protect its wearer against the influences of the evil eye.

(4) One *tambâk*, one plain gold ring on ring finger of the right hand.

(5) Ears pierced. Wears no earrings as he has no money. A dab of sandal paste over the glabella, another over the sternum, and on each shoulder.

Prolificness.—The clan being endogamous, it will be well to note here the number of children born in 16 families of those examined. In all there were born 44 male and 35 female children; altogether 79. This gives an average of 4.9 in each family; and of those there were living at the time an average of 4.6 for each family. A figure which is above the average for the *Nâyars* as a body, be it noted.

It is perhaps scarcely worth noting that the average weight of four men was 119 lb.

Names of some of those examined.

Taravâd.	Name.	Occupation.	Age.
Môlapalli	Kêlu Nayar	Cooly	22
Kanjôhi	Râman Nayar	Writer	23
Kurundottathil	Krishnan Nayar	"	20
Puthukûdi	Achutan Nayar	Trade	22
Ponmilli	Krishnan Nayar	"	45
Kuttakil	Râman Nayar	Cooly	32
Payarvîtil	Aiyappen Nayar	Mason	36
Pôvakunial	Châthu Nayar	Cultivator	26
Kalathil	Shangaran Nayar	Cooly	25
Korolath	Shangunni Nayar	"	32
Pallithotathil	Gopâlan Nayar	Nothing	22
Kûtakkil	Râman Nayar	Cooly	30
Thondil	Appa Nayar	Writer	20

Thondi or Thundi was, I think, mentioned by one of the ancient geographers as a port near where this last man lived. This man, therefore, bears the name of the place as it was, probably, in the days of Ptolemy.

VATTAKKÂD NÂYARS.

There is some obscurity in the sub-divisions of this clan. To the north of Calicut, in Kurumbranâd, they are divided into the Undiâtuna, or "those who pull" (to work the oil machine by hand) and the "Muri-Vechchu-â tune," or "those who tie or fasten bullocks" (to work the oil machine by means of bullocks and not by hand); yet farther north, Tellicherry and thereabouts there are no known sub-divisions; while in Ernâd, to the eastward, these names are quite unknown, and the clan is divided into the "Veluttâtu," the White, and the "Karuttâtu," the Black. It has been remarked already (page 82) that the Vattakkâd (those who turn round) are not always admitted to be true Nâyars. In the extreme north of Malabar they are called Vaniyan—oil monger. The "White" have nothing to do with expression and preparation of oil, which is the hereditary occupation of the Black. The "White" may eat with Nâyars of any clan; the Black can eat with no others outside their own clan. The Black sub-clan is strictly endogamous. The other, the superior sub-clan, is not. Their woman may marry with men of any other clan, the Pallichchan excepted. But not *vice versâ*. The men must marry within their own sub-clan. I think, but am not sure a man of this clan may marry a woman of the Pallichchan clan; but even if such an alliance is permissible anywhere, I do not think it ever takes place. It may be taken as accurate that men of the clan always marry within their own sub-clan, and that women of the superior sub-clan very often mate with Nâyars of superior clans.

In taking the measures I made no distinction between the sub-clans; it was only just before completion that the existence of the sub-clans was discovered. Had the important fact been discovered earlier, the sub-clans would have been separated. Though scarcely enough for scientific accuracy, it is tolerably certain that most, if not all, of those examined were of the superior sub-clan, which is exogamous as regards the women. The inferior section of the clan—the Black—is not to be found north of the Korapuzha river in North Malabar. One quarter of my subjects were measured in North Malabar—Cannanore, Tellicherry, Badagara; and for the rest, in some cases it is noted that the individuals are of the superior section. This accounts pretty correctly for rather more than half. I am tolerably certain that the other half also belonged to it.

However alert one's discrimination may be, one may fall into possible error as I did here. "What caste do you belong to?" "I am a Nāyar." "What kind of Nāyar?" "I am a Nāyar." It may take some time to let in comprehension that the name of his clan is wanted, then the answer is "I am a good Nāyar" (one of a good or superior clan). At last he will say he is a Sūdra Nāyar, a Kiriyaṭṭil or whatever he may be. Again, many claim the Kiriyaṭṭil as their clan when they really have no right to do so, being inferior to it.

Ages ranging between 20 and 62.	Maxi- mum.	Mini- mum.	Averages of 25.	To stature = 100.
Stature	178.6	154.3	167.0	...
Height, sitting	92.0	78.7	84.6	50.6
Do. kneeling	131.3	112.4	122.9	73.6
Span	190.0	164.7	177.8	106.5
Chest	95.8	70.6	81.3	48.7
Shoulders	42.8	36.9	40.3	24.1
Left orbit	51.4	44.3	46.9	28.1
Left hand length	20.5	17.0	18.7	11.2
Do. width	8.9	7.6	8.2	...
Do. middle finger	12.6	10.4	11.9	...
Hips	27.8	23.6	26.3	15.7
Left foot length	28.1	23.6	25.7	15.4
Do. width	9.8	7.9	8.9	...
Cephalic length	20.1	18.2	19.2	11.5
Do. width	15.0	13.2	14.2	...
Do. index	79.0	68.0	74.0	...
Bigonial	11.2	9.7	10.5	...
Bisymphic	14.0	12.3	13.1	...
Maxillo-zygomatic index	84.4	77.0	80.1	...
Nasal height	5.3	4.0	4.9	2.93
Do. width	3.9	3.0	3.5	...
Do. index	87.5	61.2	73.4	...
Vertex to tragus	13.9	12.3	13.1	7.8
Do. to chin	21.5	17.3	19.8	11.9
Middle finger to patella	14.5	1.8	9.4	5.62

The individual, whose mid finger when standing at "attention" to the top of his patella gives the maximum measure, had a span which was 23.4 more than his height. In seven, the length of the left foot was greater than the breadth of the hips across the crests of the ilium. In ten, the nasal length was 5 cm. and over.

The statures of the first ten measured averaged 168.2 and the nasal index 76.6; otherwise the correspondence between the averages of 10 and of 25 is complete. Perhaps mixture

of subjects belonging to the two sections of the clan is responsible for the rather important differences noted.

Face.—Nasal notch is noted as deep in 3 and moderate in 1; in the others it was slight or not apparent. The nasal bone was raised above the line of the nose in 5, and depressed in 2. The following are brief notes of individuals :—

(1) Deep nasal notch. Forehead high. Supraciliary arches very slight. Chin long.

(2) Forehead high. Nasal point slightly raised. Nasal notch moderate.

(3) Nasal point depressed so that the nose has as it were a knob at the tip.

(4) Supraciliary arches not apparent to the touch. Slightly rounded nostrils. Teeth project forwards.

(5) Deep nasal notch. Supraciliary arches marked.

The posterior portion of the head of the individual whose nasal index was the minimum seemed to project uncommonly; but his cephalic length was no more than 19·4 or a little above the average.

Figure.—Two-thirds are noted as "slight", nearly one-third as "medium," and two (individuals) as stout. One was very lean.

Hair.—In rather more than half the number of subjects the hair on the head was noted as *thick* and *wavy*. In most of the others it was *moderately thick*. In two only it was thin. In two it was *curly*. A man aged 27 had very slight growth of hair on the face (none on the cheeks), but had a fairly strong growth in the small of the back. Individuals of 40, 42 and 62 were a little grey, while one of 45 was almost bald, and what hair he had was white. Very few had hair on the cheeks, or anything like a full growth thereof. It was observed in but two instances, and in a third as slight. But it is proper to remark that, in the earlier period of my investigations, I did not make special notes about whiskers.

Hair on the chest is, as usual, not easy to gauge when there obtains the custom of shaving it periodically, every fortnight or every month. In about a quarter of the subjects the growth is noted as moderate, and in a sixth as thick; in the rest as slight or very slight. In the case of a man aged 45 the hair was white as well as thick.

Hair on the arms was moderate to thick in 13, slight to very slight in 11, and absent in 1.

Hair on the legs was, in every case but one, moderate or thick; in the case of one, very thick. The exception was in the case of a man sick and ill developed.

Colour of the skin (Broca's colour types).—The fairest was No. 40 (one only); and the two next fairest were 30 to 44 and 39 to 44. The darkest was 43. The average seems to be a little darker than 29 but not so dark as 28. Darker than the Kiriyaattil.

Colour of the eyes (Broca).—The colour of the eyes of half the number was as No. 1, and that of the other half as No. 2. One exception was between Nos. 1 and 10. The average therefore is a dark brown; not black.

Ornaments.—Ears pierced, and the usual earrings (kadukkans) worn by those who can afford them. In one case the earrings were set with a red stone. The ornaments or adornments of various individuals were as follows:—

(1) Bell metal ring on the ring finger of right hand.

(2) Two brass rings on ring finger of right hand. A string of wool thrice round the right wrist to keep off fever at night.

(3) Tattooed circular mark over glabella. The operator was a woman of the Chetti caste, a travelling tattooer, and the cost of the operation 2 pies.

(4) One gold kadukkan in each ear. Two copper rings on ring finger of right hand. Washing the face with a hand wearing a copper ring removes black spots on the face, and prevents them coming. So said the wearer.

(5) Two amulets, silver cylindrical cases containing mantrams, worn on a string round the waist to keep off fever and devils. Amulet cases are often worn on the waist in the way of ornament pure and simple.

Prolificness.—In 12 families the children born were 29 males and 34 females, or an average of 5.2 children to each family.

The average weight of 4 individuals was 119½ lb.

The names of some of those examined.

Taravād.	Name.	Occupation.	Age.
Blathādi ...	Govindan ...	Cultivator ...	40
Rāvāri Chandil.	Kēlu ...	Do. ...	22
Palōli ...	Kunju ...	Do. ...	25
Murikolipōil ...	Shangaran ...	Trader ...	21
Kuṭṭadath ...	Krishnan ...	Writer ...	20
Thaikandi ...	Appu ...	Cooly. ...	26
Thasbathadathil ...	Chāthu ...	Do. ...	24
Erankulangara ...	Kittan ...	Milk seller ...	25
Vēlashēri ...	Cherukoman ...	Cultivator ...	40
Chēlattumal ...	Kunhunni ...	Cooly ...	44
Patavetti ...	Chāthukutti ...	Cultivator ...	62

SŪDRA NĀYARS.

We now come to the Sūdra Nāyars, men and women of which clan supply the house servants in the Nambūtiri Brāhmins' houses. It is only a few who are occupied in this way, however, and of all those examined only one is noted as a servant. The subjects were found in various parts of South Malabar, a few from the neighbouring Cochin Native State.

Ages ranging between 22 and 52.	Maximum.	Minimum.	Averages of 25.	To stature = 100.
Stature	173·3	151·1	165·9	...
Height, sitting	90·8	78·8	85·8	51·7
Do. kneeling	128·3	110·1	122·9	74·1
Span	186·0	158·3	174·3	105·1
Chest	89·0	76·0	81·1	48·7
Shoulders	43·4	37·4	40·2	24·2
Left cubit	48·6	41·4	46·1	27·3
Left hand, length	20·2	16·8	18·7	11·3
Do. width	8·6	7·3	8·1	...
Left middle finger	12·1	9·9	11·1	...
Hips	27·9	24·0	26·0	15·7
Left foot, length	27·0	23·1	25·3	15·3
Do. width	10·3	7·8	8·9	...
Cephalic length	20·2	17·7	19·2	11·6
Do. width	15·3	13·0	14·1	...
Do. index	86·4	65·0	73·8	...
Bigoniac	11·4	9·4	10·5	...
Biszygomatic	14·1	11·9	13·1	...
Maxillo-zygomatic index	85·7	76·6	80·3	...
Nasal height	5·4	4·0	4·7	2·83
Do. width	4·2	3·3	3·7	...
Do. index	89·1	67·9	79·4	...
Vertex to tragus	14·4	12·5	13·3	8·0
Do. to chin	21·3	17·7	19·6	11·8
Middle finger to patella	15·7	7·0	9·9	5·97

Note.—The individual whose cephalic index is the maximum was measured in Palghat, where there are many Pattar (East Coast) Brāhmins; his father was, in all probability, one of them. The index of no other equalled 79·0. One broad headed man, whose father was known to have been a Pattar Brāhman, was excluded from the averages.

There were but three subjects whose nasal height was 5 c.m. and over.

Face.—Slight prognathism was noticed in one. In another the posterior portion of the parietal was curiously flat.

Some individuals were described in my notes—

- (1) Nasal bones wide and thick. Teeth project.
- (2) Lips thick and somewhat projecting. Chin receding. The flesh on the chin is thick, giving it a rounded lump like appearance. Inion appears to be in a projecting ridge round the back of the head. (Cephalic length 19·7.)
- (3) Supraciliary arches slight. Nasal notch. Nose straight. Lips slightly everted. Teeth in upper jaw project forwards. Eyes deep set. Inner corner of eyes a trifle oblique.

The last two specimens are uncommon; not typical. The thick lips and projecting teeth are not usually noticeable as in their case. The long oval face is the common type. The fashion of wearing no hair on the face, shaving the head at the back and at the sides and a little over the forehead, leaving but the oval patch on the vertex, no head covering being worn, gives the face an appearance of length. But while the average of the measure vertex to chin, for all the Nâyars,* reduced to stature equals 100, is 11·9, the same for 21 of the 30 different castes † examined in Malabar is greater. The Mukkuvan is as high as 13·4, while on the other hand the Nambûtiri is less, being but 11·7.

Figure.—One out of 25 is recorded as “stout.” One-third were “slight.” Nearly two-thirds were medium or thereabouts; and this seems to represent the average.

Hair.—More than half are noted as having whiskers, that is, growth of hair on the cheeks. In two-thirds of the subjects the hair on the head was thick and wavy; in a few cases it was very thick. Individuals aged respectively 25, 32, and 52 were noted as being a little grey. In one-quarter of the total number the hair was thin to moderately thick. One individual of this clan is marked as having hair a little grey.

Hair on the chest.—Rather more than a quarter of the whole had thick to moderately thick hair. In the case of one man hair was thick all over the body, even on the back: everywhere except over the ribs, the front of the upper arm and shoulder. In another the hair on the small of the back was thick. In the greater number of individuals it was marked slight, and moderate, and in a few it was absent.

* Group A included.

† Counting each clan of the Nâyars separately.

Hair on the arms.—In half the number of subjects it varied from moderate to thick ; in the other half it was slight to very slight or (in a few) absent altogether.

Hair on the legs.—In more than half it varied from moderately thick to very thick. One was noted as "like a bear." In one individual only it was noted as very slight.

Colour of the skin.—The darkest (one only) was between 42 and 43 (Broca's colour types). Two others were nearly as dark. The fairest was 44. Two others were nearly as fair. The average is between these extremes.

Colour of the eyes.—The darkest was no. 1 (Broca's colour types). The lightest between 2 and 3. Rather more than half were 2 or shades of 2, generally lighter, while nearly one-half were No. 1.

Ornaments.—As a rule the ordinary earrings are worn. A section of the clan calling themselves *Ellenkiria* (or *Elleng Kiria*—tender Kiria ?) wear no earrings, though their ears are pierced. Some members of this section told me they never wore earrings, while others said they could wear them as a rule, but they could not wear them when they went to the *Kôvilakam* (palace) of the Zamorin.

The right nostril of one man was slit vertically as if for insertion of a jewel. His mother miscarried in her first pregnancy, so, according to custom, he, the child of her second pregnancy, had had his nose slit.

Another wore a silver bangle. He had had a wound on his arm which was long in healing, so made a vow to the God at Tirupati (North Arcot District) that, if his arm was healed, he would give up the bangle at the Tirupati temple. He intended to *send* the bangle by a messenger, any one going to Tirupati, when his arm was quite healed : then only would he fulfil his vow. If this illustrates how a vow *may* be fulfilled,—he had not vowed to go *himself* and give the bangle up, only to *give* the bangle which was meanwhile convenient as an ornament,—the man's ideas about the God at Tirupati illustrate the confused ideas as to the personality and attributes of the Gods of Modern Hinduism which obtain in Malabar. He thought it was *Baghavati* whose shrine was the object of pilgrimage to Tirupati, but was not at all sure ; indeed he was not sure whether it was a God or a Goddess. It is scarcely necessary to say that the God at Tirupati is a form of Vishnu.

Other individuals wore ornaments, thus—

(1) Gold ring on ring-finger of the left hand. Earrings with red stone. Amulet against the evil eye. Copper sheet on which the charm was inscribed in a silver cylindrical case. Copper ring on ring-finger, right hand.

(2) Two copper rings on the ring-finger, right hand. Belongs to the Ellenkiria, so wore no earrings.

(3) Brass ring, ring-finger, right hand. Also of the Ellenkiria.

(4) Copper ring, ring-finger, right hand. Gold earrings of the ordinary pattern.

(5) The ordinary gold earrings. Silver string round the waist; not exclusively ornamental. He fastened his loin cloth to it.

Vital Statistics were noted in but two cases. In one family there were two brothers and three sisters; in another, one brother and two sisters.

Names, etc., of a few Taravád.	Name.	Occupation.	Age.
Puthen Víttil ...	Krishnan	Cultivator	52
Parithil ...	Achutan	Do.	27
Malabíttil ...	Sivaráman	Do.	22
Oholale ...	Ráman	Do.	20
Munthira ...	Narráyanan	Teacher	26
Kanakath ...	Kunhi Krishnan *	Unemployed	23
Mannareth ...	Shangaran	Trader	30
Kúmbiyal ...	Kannan	Peon	25
Othianmádttil ...	Gôvindan	Do.	33

NAMBIYÂR NÂYARS.

Men of this clan affix Nambiyâr to their name. Thus, Gôvindan Nambiyâr, Kêlu Nambiyâr.

Ages ranging between 20 and 40.	Maximum.	Minimum.	Averages of 22.	To stature = 100.
Stature ...	177.1	155.7	165.1	...
Height, sitting ...	89.3	80.0	84.2	51.0
Do. kneeling ...	129.8	115.0	122.0	73.9
Span ...	188.0	166.5	175.3	106.2
Chest ...	84.0	75.0	80.3	48.6
Shoulders ...	42.8	37.8	40.0	42.2
Left cubit ...	50.5	43.6	46.0	27.9

* This individual had 'Menon' instead of Nayar after his name, he having been invested with the distinction by the Zamorin.



NAYAR WOMEN (SOUTH MALABAR), AGED 20 AND 17.

NAMBIYÂR NÂYARS—*cont.*

Ages ranging between 20 and 40.	Maxi- mum.	Mini- mum.	Aver- ages of 22.	To stature = 100.
Left hand length	20·0	17·7	18·4	...
Do. width	8·5	7·3	7·8	...
Do. middle finger	12·5	10·3	10·9	...
Hips	26·7	24·4	25·4	15·4
Left foot length	27·2	23·6	25·2	15·3
Do. width	9·2	8·0	8·6	...
Cephalic length	20·6	18·3	19·2	11·6
Do. width	15·4	13·2	14·1	...
Do. index	79·3	69·4	73·7	...
Bigonial	11·5	9·1	10·3	...
Bizygomatic	13·5	11·9	13·0	...
Maxillo-sygomatic index	87·1	73·8	79·2	...
Nasal height	5·5	4·2	4·8	...
Do. width	4·3	3·2	3·7	...
Do. index	92·9	62·7	77·3	...
Vertex to tragus	13·9	12·2	13·0	7·9
Do. to chin	21·4	18·2	19·7	11·9
Mid finger to patella	15·7	6·5	10·4	4·73

Note.—Although the number of subjects is limited to 22, the averages may be accepted as correct. The averages for 10 and for 25 are, as a rule, identical; in a few there is a trifling difference, but nowhere is the difference more than trifling.

In eight individuals the nasal height was 5 cm. or over. This is about 36 per cent.

In four the nasal index was 90 or over, and in four it was less than 70.

Face.—Observation was recorded in but nine instances.

The reason for this which seems to give examination of subjects a somewhat casual character, is that during the early part of my investigations my notes as to physical characteristics, shape of the nose, etc., were less complete than they were later on. Very seldom, in fact only in the case of the Irulans, was one caste examined completely at a time. It was impossible to work on the people caste by caste. Official duties rendered it impossible to regulate one's peregrinations so as to do so. Subjects were taken where and when they could be got hold of anywhere in the district.

In two cases only the supraciliary arches were rather prominent; in the others, slight or absent.

In four the nasal point was somewhat elevated. Slight prognathism with projecting teeth was observed in one individual, an unhealthy person.

Figure.—Seventy-one per cent. of the subjects were noted as “slight,” 29 per cent. as “medium” and of those but two individuals are put down as “sturdily built.”

Hair.—In three individuals hairiness was conspicuously apparent, there being hair nearly all over the body, and in one of these the hair in the small of the back was so thick that in my notes it is described as “like a bush.”

On the head.—In nearly 80 per cent. of the subjects the hair on the head was “plentiful and wavy”; in a few of these it was “very thick,” while in the remaining 20 per cent. it was “moderate.” In no case was it noted as “thin” or “slight.” The number of subjects in which growth of hair on the cheeks was noted was one-fifth of the whole.

On the chest.—In nearly a quarter, the hair on the chest was noted as “thick.”

On the arms.—In most cases it varied from “very slight” to “moderate.” Barely “thick.”

On the legs.—In nearly half it was “moderately thick” to “thick”; in the remainder, slight to moderate.

Colour of the skin.—It should have been noticed before that the colour of the face of the ordinary Malayali is invariably lighter than that of the body; possibly from the prevailing custom of using the umbrella. Malabar is for the most part shaded by trees and palms, and its peoples have not that disregard for the sun’s javelins which we see in the country to the eastward. No one starts on a journey, and rarely leaves his house, without his umbrella—the thing of cadjan now being by degrees replaced by the cheap umbrella of European manufacture. The labourer working in the field, the fisherman in his boat on the sea, the boatman on the backwater, all wear a large umbrella-like hat. Women always carry an umbrella out of doors; or, as in North Malabar, an umbrella hat-like thing which seems to be a curious survival of the custom of wearing an umbrella hat, is carried. This is, apparently, an ordinary umbrella hat, but the central part, which appears to be made to fit the head, as in the ordinary umbrella hat, is too small by half to fit any head, and this hat-like umbrella is carried in the hand to shield the head from the sun and the face from the inquisitive passer by. The fact remains that the Nayar, of whom we are now speaking, who never or very rarely wears any covering on the head, cannot withstand the

effect of the direct rays of the sun without an umbrella. A few hours' walk in the midday sun where there is little or no shade, is sufficient to bring on fever to the ordinarily strong man.

Colour of the skin was taken generally on the right arm just below the shoulder, the book containing the colour types being pressed against the skin.

The fairest was No. 44 (Broca).

The darkest was No. 28 (only one of this).

More than half were 29 and fairer, and the remainder were still fairer, several being 44 or very nearly.

Colour of the eyes.—In about three quarters of the subjects the colour of the eyes was No. 2 (Broca); in about one-quarter they were 1 to a trifle darker. In one individual the colour was between 2 and 3; a light brown.

Ornaments.—One or two golden kadukkans are commonly worn in each ear by those who can afford them. Ears pierced always. Though not for purposes of ornament, the ears of two individuals were marked by holes—pieces cut out of the cartilage. In one there was a circular hole 4 mm. in diameter, cut out of the cartilage of the right ear, and in another a circular hole 6 mm. in diameter in the left ear. In both cases the holes had been made during childhood to prevent colic.

The ornaments worn by a few individuals were as follows:—

(1) One tambāk ring on ring finger, right hand. One iron ring on the little finger of the left hand.

(2) One gold kadukkan in each ear. One plain gold ring on the ring finger of the right hand. Wore a silver girdle on the waist instead of a string, to which he fastened his lunguti.

(3) Silver cord round the waist; on it a silver amulet case, of the usual shape, having inside it a charm written on a gold leaf to protect the wearer against the evil eye.

(4) One silver ring on ring finger of the left hand. Two gold kadukkans in each ear.

Miscellaneous.—One man was tested, and found to have perfect vision. Weight was recorded in five cases only; the average was nearly 110 lb. which is probably not far from the general average.

Names. etc., of some of those who were examined are given below:—

Taravád.	Name.	Occupation.	Age.
Puthushéri	Kanáran	Rent Collector (for a temple).	22
Mávila	Kumáran	Cultivator	31
Chálayil Kandóth ...	Cháttu ... ..	.....	22
Puthiotil	Ráman	Servant	22
Chalil Kannóth	Anandan	Cultivator	25
Ramath	Kunhi Ráman ...	Landlord	34
Kalliat-panóli	Rámuni	Stamp vendor ...	30
Thérugandi	Paidal	Cultivator	25

PURATTU OHARNA NÁYARS.

Men of this clan bear the affix Náyár after their name, as Góvindan Náyár, Gópála Náyár.

Ages ranging between 20 and 70.	Maximum.	Minimum.	Averages of 25.	To stature = 100.
Stature	174.8	155.0	166.1	...
Height, sitting	92.4	77.7	85.3	51.3
Do. kneeling	180.2	113.7	122.7	73.9
Span	184.1	155.6	174.0	104.7
Chest	87.6	69.7	79.6	47.9
Shoulders	43.9	33.3	39.6	23.9
Left cubit	49.1	42.0	45.8	27.6
Left hand length	19.3	16.8	18.5	11.1
Do. width	8.3	6.5	7.9	...
Do. middle finger	11.6	9.8	10.5	6.3
Hips	38.0	23.8	25.7	15.5
Left foot length	27.4	22.3	25.3	15.2
Do. width	9.9	7.4	8.7	...
Cephalic length	20.6	17.6	19.5	11.7
Do. width	15.5	12.9	14.5	...
Do. index	81.5	65.2	73.2	...
Bigoniae	11.1	9.3	10.3	...
Bizygomatic	13.9	11.7	13.0	...
Maxillo-zygomatic index ...	88.8	73.9	79.5	...
Nasal height	5.2	4.0	4.8	2.88
Do. width	3.9	2.9	3.6	2.17
Do. index	90.0	56.9	76.3	...
Vertex to tragus	14.4	12.2	13.1	7.9
Do. to chin	21.1	17.5	19.8	11.9
Middle finger to patella ...	17.5	5.3	10.7	6.44

Cephalic length.—In 8 individuals or 32 per cent. of the whole, the cephalic length was 20.0 or over. The maximum cephalic width (of one individual only) is abnormal;

the next nearest to it is 14.8. In 6 individuals the nasal length was 5 cm. or over. In one individual the iliac bone was much higher at the right side than on the left.

Face.—A few individuals were noted thus—

(1) Deep nasal notch. Nasal point slightly elevated. Helix of ear very thin; the Darwin's point in the centre of the curve on the left and high up on the right.

(2) Deep nasal notch. Chin receding. Lips thick.

(3) Slight nasal notch. Supraciliary arches developed at outer edges. Chin recedes.

(4) Supraciliary arches and glabella in one marked ridge. Nasal point somewhat raised. Nasal notch.

(5) Very deep nasal notch. Very wide and thick eyebrows.

Figure.—More than half are marked as slight—a few of them "very slight"; the rest "medium." None "stout."

Hair.—As a rule, to which exceptions are very few, hair on the head is thick and wavy; curly in the case of one individual. The hair of a man of 70 was noted as "very thin and grey." A man of 31 also had hair which was "thin and grey," but he was exceptional. The growth of hair on the cheeks—whiskers—was observed in almost every subject.

Hair on the chest.—The average is "moderate."

On the arms.—The growth of hair in half of the subjects was "slight to very slight"; in the other half, "moderate to thick."

On the legs.—It was noted as "moderate" to "thick" in more than three-fourths of those examined; in a few, "slight."

The growth of hair of a few individuals is here specified—

(1) Aged 54. Hair on the head moderately thick and grey. Hair on the face white. Growth of hair on the cheeks. Hair all over chest grey. Very long thick hair on the back. Hair on the legs and arms thick.

(2) Aged 36. Hair on the head moderately thick and wavy. Glossy black. On chest and middle line of abdomen, moderate. On the arms and legs moderately thick. Shaves the head (except the crown), face, chest, abdomen, wrists and hands, about every 15 days.

(3) Aged 28. Hair on the head thick and wavy. Growth of hair on cheeks; on the chin it is very thick. On the chest, moderate; on the arms, very slight; on the legs, thick. Does not shave his chest, as doing so would make

him weak ; on the other hand, if he does not shave his head and face, he will become sick.

Shaving cannot be done on a Tuesday or a Saturday, or on the day of an eclipse of sun or moon ; nor on the full moon day, the new moon day, nor on the 11th day of the moon—the *Ekadasi*. This applies to most *Nâyars*, but not to all.

Colour of the skin.—The skin of the darkest individual corresponded to Broca's colour type No. 43. There was but one of this colour.

Three were of No. 28.

Seventeen were of No. 29 and lighter.

Three were of No. 37 and lighter.

One not taken.

The average colour must be nearly as fair as 37.

Colour of the eyes.—The average corresponds rather to Broca's No. 2 than to his No. 1.

Nine individuals were of No. 1.

Seven individuals were between 1 and 2.

Seven individuals were of No. 2.

Two not taken.

Ornaments.—All those examined had had their ears pierced, but most of them wore no earrings, saying it was not proper for a *Purattu Chârna Nayar* to wear them. Four individuals, or nearly one-sixth of the whole, however, wore the ordinary earrings ; one indeed wore (the only instance) one gold and one silver earring in each ear. Rings of any kind may be worn on the fingers, and the thin iron ring such as is usually worn, was observed occasionally on the ring finger of the right hand, or on the little finger of the left.

The ornaments worn by a few individuals were as follows:—

(1) Aged 23. Two rings on the ring finger of the right hand ; one of them *tambâk* (described already), the other of silver and iron. The last was worn as a prophylactic against fever. Said he had worn it for the previous five days, and during that period he had had no fever ! (This individual, by the way, had been vaccinated, and suffered from an attack of small-pox nine years afterwards.)

(2) Aged 35. One copper ring on the ring finger of the right hand. An amulet of tiger's teeth (as in my collection) on a string round the waist. The amulet contains nothing, and is worn to protect its wearer from fever. Two silver amulet cases of the usual cylindrical pattern worn on the waist ; each contains a *mantram* written on paper

for protection against evil spirits. On one occasion he was frightened when near water, and subsequently was troubled by beings called Pûtams, devils of a very inferior kind which haunt water. He had bad dreams, so consulted a Mâppila priest (a Musaliar—a priest of sorts) who gave him the mantrams. Wore also a charm—"to entice the public" as he explained, so that people will, as a rule, like him, please him, flatter rather than annoy him. He got this too from a Mâppila priest—a Mullah.

(3) Aged 24. This man had travelled. At Dvâraka the city of Krishna, the ninth incarnation of Vishnu (in the Kulluva peninsula), a chank above and a chakra below had been branded on his left upper arm, on his right, a chank above and a lotus below. Each forearm bore the branded mark of an indistinct seal said to represent Krishna, testifying to a visit to the temple at Dharnidara. Had been to Benares and worshipped his ancestors at Gaya (throwing their ashes into the Ganges), an operation which at once removes all necessity to give them any further attention.

Prolificness.—In 9 families, in respect of which notes were taken, there were born altogether 48 children, 30 male and 18 female, or about 5·3 children to each family.

Following the rule, or rather custom, which governs all marital connexions amongst the Nâyars, a woman of this clan may be mated with a man of the same clan, or with a man of the Kiriyaatil clan, but with no other clan. Consequently, a man of this clan cannot be mated with a Kiriyaatil woman, for the woman can never mate with one who is not at least her equal.

Names of some of those examined.

Taravâd.	Name.	Occupation.	Age.
Kishak Vellat	Kundu	Cultivator	42
Pandoli	Konti	Do.	22
Karuthôdiyi	Gôvindan Kutti	Head of his family	21
Vellât	Gôpâlan	Cultivator	24
Pudieth	Kanâran	Schoolmaster	23
Puttikapureth	Kelukkutti Menon*	Writer	36
Karumuthil	Kandar, alias Kunja Panikkar.*	Cultivator	70
Pâlat	Râma Panikkar	Do.	56
Kâkkât	Gôvindan	Do.	20

* The affix (Paniker, Menon) is a title, not necessarily but possibly hereditary.

Note.—I find I have noted one man as Viyyâr Purattu Chârna, as if Viyyâr is a sub-clan, and that he marries in his own sub-clan; but I am not sure whether the Purattu Chârnas are so sub-divided, and think not.

AKATTU CHĀRNA NĀYARS.

This is one of the relatively inferior clans. It is not one of the fighting clans, as the Purattu Chārna. The clan is divided into two sub-clans, one of which looks to the Zamorin as their lord, and the other owns lordship to minor lordlings, as the Tirumulpād of Nilambūr. The former are superior; and a woman of the latter may mate with a man of the former, but not *vice versa*. The men, but not the women of the two sub-clans, may eat together. There is no distinctive name for the sub-clans. As mentioned already, women of this clan are under no restriction as to residence or travel as are those of the superior clans; hence, of late, officials in North Malabar, officials or vakils residing in Madras, have been wiving with these women. The women may mate with men of their own or of any other clan, or with a Nambūtiri. Not so the men, who can marry women of their own clan only.

Ages ranging from 20 to 44.	Maximum.	Minimum.	Averages of 25.	To stature = 100.	Remarks.
Stature ...	179.4	154.7	165.0	...	
Height, sitting ...	92.0	79.7	85.5	51.8	
Do. kneeling ...	132.6	113.8	122.3	72.1	
Span ...	190.4	161.9	175.2	106.2	
Chest ...	89.0	76.6	81.0	49.0	
Shoulders ...	42.5	37.4	40.1	24.8	
Left cubit ...	51.1	42.4	45.9	27.8	
Left hand length ...	21.2	16.9	18.4	* 11.1	* 11.15
Do. width ...	8.8	7.3	8.0	...	
Left middle finger ...	12.7	10.1	10.9	6.6	
Do. hips do. ...	28.4	24.1	25.9	15.7	
Left foot length ...	28.7	22.3	† 25.1	15.2	† 25.15 In one
Do. width ...	9.8	7.9	8.8	...	subject great-
Cephalic length ...	20.4	17.0	19.1	11.6	est length was
Do. width ...	15.5	13.0	13.9	...	measured to the
Do. index ...	80.6	67.2	72.8	...	second toe.
Bigoniac ...	11.2	9.8	10.5	...	
Bi-sygmatic ...	14.2	11.8	13.0	...	
Maxillo-sygmatic index ...	85.4	78.5	81.2	...	
Nasal height ...	5.4	4.0	4.7	2.84	
Do. width ...	4.1	3.1	3.6	...	
Do. index ...	90.9	63.0	77.0	...	
Vertex to tragus ...	13.9	11.8	12.9	7.9	
Do. to chin ...	20.9	17.9	19.6	11.9	
Middle finger to patella.	13.5	8.8	9.9	5.97	

In three the cephalic length was 20 cm. or over. In nine the nasal height was 5 cm. or over.

Face.—The notes made on a few individuals will be set down here. In most cases the supraciliary arches were well marked, and the nasal notch was deep. Nose generally straight, or nasal point slightly raised. Prognathism rare. Lips, especially the lower lip, often very thick.

(1) Very well bred looking. Eyebrows fleshy and thickly marked. Supraciliary arches very slight. Deep nasal notch. Nose straight; nasal point raised very slightly—and very well shaped. In the left ear a very small hole above the usual one in the lobe; I have not noted why it was made.

(2) Supraciliary arches rather prominent. Upper portion of forehead somewhat protuberant. Deep nasal notch. Nasal point raised. Lower lip thick. This man's father was a Nambûtiri. He appears in the plate.

(3) Forehead high. Deep nasal notch. Slight prognathism. Lower lip very thick.

(4) Supraciliary arches not marked. Nasal notch moderate. Lips thin.

Two out of the twenty-five were deeply pitted with small-pox, the Malabar goddess of small-pox, Bhānnāra-mûrti, having hurt them. In one man the broadest part of the head was above the ears, a little in front.

Figure.—The number of those put down as slight and those put down as medium are about equal.

Hair.—Worn in the usual Malayali fashion which has been described already and, as a rule, plentiful and wavy; treated with gingelly oil, which is sometimes perfumed. The number of individuals whose hair (on the head) was noted as "very thick and wavy" is abnormally large. A young man aged 24 had some white hairs here and there on his head; a man of 35 was a little grey; a man of 39 also; and one of 44 was quite grey. Whiskers or growth of hair on the cheeks were observed in more than half the number of subjects. In several there was hair, fairly thick in some, in the small of the back, and one man had thick hair all over the back.

Hair on the chest was "moderate" or "thick" in more than half.

Hair on the arms was "moderate to thick" in about half; in the other half, "slight."

Hair on the legs was, as a rule, thick: rarely less than moderately thick. The legs of one man were like those of a bear.

The hair on the person of a youth aged 20 (No. 1 above) was noted thus—

(a) On the head very plentiful, black, glossy and wavy; treated with gingelly oil. Sprouting on the lip and chin. A small patch of moderate thickness on the sternum; slight on the arms; moderate on the legs.

Another, aged 25—

(b) On the head very thick, and approaching the outer edge of the eyebrows. Thick on the chest and mid line of abdomen, although these parts have been shaved recently, as also the arm pits. Thick hair in the small of the back. Slight growth on the back. Moderate on the arms; thick on the legs.

The individual (a) said he shaved any day of the week, and any day of the month. He was the Kârnavan of his Taravâd: 'a very youthful one.

Colour of the skin.—The fairest was between 33 and 40 (Broca); the darkest was 43 (redder). The average seems to be between 29, 37 and 44.

Colour of the eyes is a light brown. The actual numbers are—

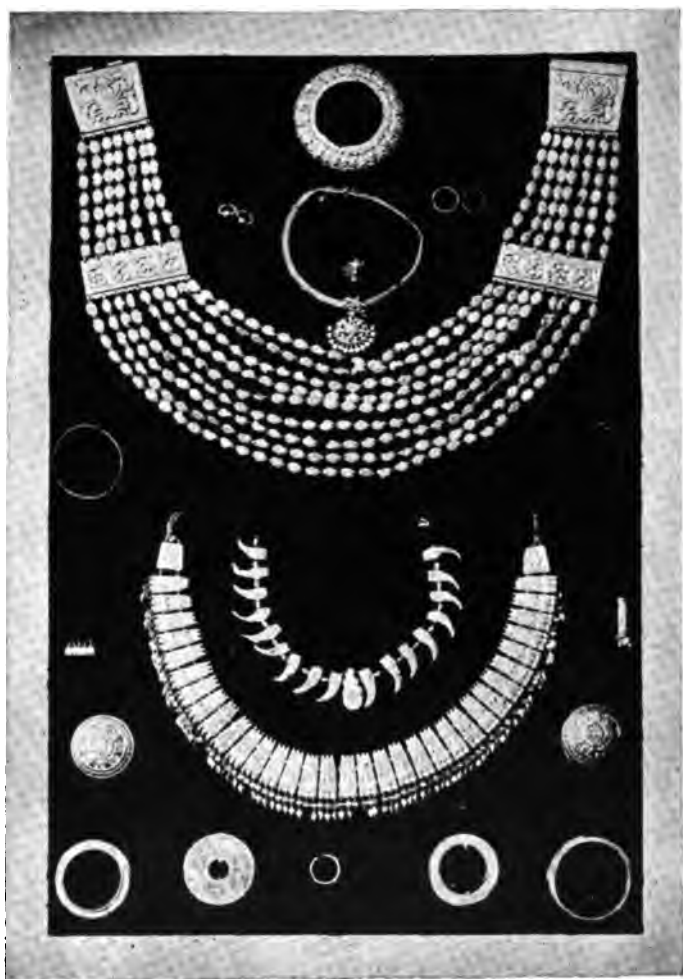
Of colour type	No. 1	(Broca) 5 individuals.
" "	" 1 to 2	" 6 "
" "	" 2	" 7 "
" "	" 2 to 3	" 5 "

(Two were not included.) So that, although the eyes of rather more than one-fifth were dark brown, what would ordinarily be called black, the remainder were distinctly lighter in colour; and the number of persons whose eyes might be called quite a light brown, equalled those whose eyes were nearly black.

Weight of but 3 was recorded. The average is 105½ lb.

Prolificness.—In the 8 recorded instances the average number of children in each family was 3·7. It will be remembered that this clan is perhaps most of all under process of intermixture, its women mating with men of several higher clans (their own included) and with Nambûtiris.

Ornaments.—Ears are always pierced, and the usual Malabar earrings—kadukkans—are worn; sometimes as many as four in each ear. Individuals were noted thus—



JEWELLERY WORN BY NAYAR WOMEN.

(1) Aged 24. Circular patch of sandalwood paste, 1·8 cms. in diameter over the glabella. Two stripes of sandalwood paste on each upper arm. No ornaments.

(2) Aged 32. Four gold earrings in each ear. One "tambāk" ring on ring finger of left hand. A ring made of a bit of wire picked up on the road worn on the ring finger of left hand.

(3) Two gold earrings, set with a red stone, in each ear. Wears an amulet, contained in the ordinary cylindrical amulet case; but I have not noticed what the amulet itself actually is. He used to be much troubled by a devil, the departed spirit of an east-country Brahman who died by drowning. He wore the charm to keep this gentleman off.

(4) Aged 24. A silver girdle worn, instead of a string, to which the languti is tied. An iron ring on the 3rd toe of the left foot. Rings are very rarely worn on the toes by any people in Malabar. All over the rest of the Madras Presidency they are, of course, common.

(5) Aged 39. Three earrings, of the usual pattern in each ear. A ring called an elephant's ring, made of silver, in which is arranged circularly a piece of the hair of an elephant's tail, worn on the ring finger of the left hand. There is one of these rings in my collection.

Names, etc., of a few are given—

Taravād.	Name.	Occupation.	Age.
Pilathottathil ..	Théyyan Mênon ..	Amshom Mênon or writer.	44
Potishêri	Unikkandan	Post runner	31
Valia parambath ...	Râman	Peon	20
Chatha Vîtil	Vélappa Mênon ...	Servant	26
Chandrethil	Kuttan	Do.	22
Earat	Krishnan	Cartman	39
Kanjôli,	Shangara Mênon ..	Writer in a temple ...	34
Kôlangyarath	Chandu	Cooly	36

This last-named individual was measured in the Cannanore Jail, in which institution he, a prisoner himself, filled the office of hangman. He had hanged 10 men in the jail, and, at the rate of 2 rupees a case, he was owed 20 rupees; a nice little sum, which he would be given when leaving the jail at the expiration of his sentence. I was surprised to find a man of the Nâyar caste filling the office of hangman, so enquired the reason and was informed he had put aside his caste scruples while in jail. The office was in its way lucrative, and, when he emerged into freedom, no one would be the wiser, and he would have twenty and odd rupees in his pocket. He did not mind violating certain principles of his caste, doing that which is derogatory, so long as no one knew; but he *did* mind being found out.

KURUP NÂYARS.

The number examined, 8, is not, of course, enough on which to base dependable averages. The men of this clan are—judging by the average such as it—is the tallest of all those examined. Tall, straight, well-bred looking men they are; carrying with them an air of independence and self-respect as one of the old fighting clans. It will be observed that the cephalic length is greater than the average for all the Nâyars, while the cephalic index is less, showing that they are longer headed, and more dolichocephalic than the average Nayar. Again, the measure of vertex to chin is much greater than in any other clan; and their faces are narrower. The index $\frac{\text{Bizygomatic} \times 100}{\text{Vertex to chin}}$ gives the Nambûtiri one of 69.5, all the Nâyars excluding the Kurups 66.2, and the Kurups 64.5.

The men are called by their clan name, Râma Kurup, Krishna Kurup, Gôvinda Kurup. The name Râma seems to be a favourite one, as four out of eight were so called.

Ages ranging between 20 and 72.*	Maximum.	Minimum.	Averages of 8.	To stature = 100.
Stature	174.9	163.4	167.1	...
Height, sitting	88.8	82.9	85.7	51.3
Do. kneeling	180.3	120.2	124.1	74.3
Span	184.8	173.0	178.6	106.6
Chest	89.4	78.3	82.4	49.9
Shoulders	43.2	38.8	40.4	24.9
Left cubit	51.0	45.1	47.5	28.4
Left hand length	20.8	18.2	19.3	11.5
Do. width	8.8	7.7	8.2	...
Left middle finger	12.3	10.9	11.5	6.9
Hips	28.4	24.5	26.4	15.2
Left foot length	28.0	24.9	26.4	15.2
Do. width	9.5	8.0	8.8	...
Cephalic length	20.6	18.9	19.5	11.7
Do. width	14.6	13.4	14.0	...
Do. index	74.6	68.9	72.0	...
Bignoniac	10.9	9.6	10.3	...
Bizygomatic	13.7	12.3	13.1	...
Maxillo-zygomatic index	63.5	76.7	79.6	...
Nasal length	5.3	4.4	4.8	2.87
Do. width	3.9	3.4	3.7	...
Do. index	84.1	64.2	76.2	...
Vertex to tragus	14.3	12.3	13.2	7.9
Do. to chin	21.8	19.0	20.3	12.1
Middle finger to patella	18.0	3.6	9.2	5.51

* The man who said he was by his horoscope 72 was put down by me as looking 58.

In two individuals (out of 8) the cephalic length was over 20 cm. In three the nasal height was 5 cm. and over.

Face.—The notes made on two subjects are—

(1) Forehead high. Supraciliary arches distinctly developed. Very deep nasal notch. Nasal point elevated above the line of the nose.

(2) Supraciliary arches not apparent. Nasal point slightly elevated.

Figure.—The greater number are noted as slight; about one-third as medium to stoutly built.

Hair.—Much as those of the other clans. The man who said he was 72, but who looked 58, showed no sign of baldness; his hair was but moderately grey. Another, aged 36, a very strongly-built man, was becoming bald. Baldness at his age is, I should say, rare.

Colour of the skin.—The average is a trifle darker than 29 (Broca). The fairest was fairer than 29, and the darkest was No. 43.

Colour of the eyes.—The average colour of those examined is between 1 and 2 (Broca).

Ornaments call for no remark; they are much as those worn by other Nâyars. Ears are always pierced, and earrings worn.

It would be profitless to deal separately with the measures of the individuals comprising the group A in the same way as the others which are more or less complete, with the exception of the Kurup clan. As said already in the group A consists of—

2 of the Nelliôden clan.	3 of the Pallichan clan.
2 „ Viyyûr clan.	1 „ Muppattinâyiran clan.
1 „ Vangilôth clan.	2 „ Vyâpâri clan.
1 „ Kitâvu clan.	1 „ Attikkurissi clan.

and their measures taken collectively have been quoted. The Attikkurissi are endogamous, and the Kitâvu do not wear earrings.

At page 60, Bulletin, Vol. III, No. I, where, speaking of the Nambûtiri Brahmans, it was said that possibly it may be found that marriage between a brother's daughter and a sister's son may be found to produce the finest issue; to be the best for preservation of the race. This kind of marriage of first cousins, but never of progeny of sisters or of brothers, is in a general way the rule throughout

Southern India, and it obtains amongst the endogamous Attikkuriassi clan of the Nâyars, who look upon it as the most fitting union.

MARRIAGE.

“The haughty nobles and the vulgar race
Never must join the conjugal embrace.”

The Lusiad.

The common assertion that there is no such thing as marriage amongst the Nâyars, so easily accepted in belief that the Government has been persuaded into a commission to examine the question and to pass an edict entitled “The Malabar Marriage Bill” (which happily fell dead, and is extremely unlikely to effect the customs of the Nâyars and others following the Marumakkattâyam law of inheritance), reminds one of the weary disquisition by people who are dull enough to try and prove that Shakespeare’s plays were not written by Shakespeare, but by another fellow of the same name. No events of life being so realistic to man as marriage and death (to the individual, to the tribe, to the people) shallowness rather than sturdy hardihood of racial character is perhaps indicated when we find any downright change in the ceremonial of marriage, even though it be but some ephemeral divagation and not properly speaking radical change.

Buchanan, writing in 1800, tells us that Nayar girls are married before 10, so that they may not be deflowered by nature, but the husband never afterwards cohabits with his wife. It would not be decent. He allows her this and that, and she lives in her mother’s house where she may admit a lover of her own or of a higher caste; the lover giving her a small present; never a large one, which would indicate that she was influenced by mercenary motives. He says the young people vie with each other for favour of the other sex, but that, should a Nayar man have intimacy with a Tiyan (a lower caste) woman, he is put to death and the woman is sold to the Mâppilas! In the case of the *chère amie* being a slave—presumably of the Cheruman or cognate tribes—both are put to death. If this be true, there were forcible means used in those days for preventing intermixture of the people of the higher and lower castes. Buchanan tells us also that in North Malabar, where as a rule the lady lives in his home, the Nayar or Nambûtiri lover may put her to death, should she be guilty of infidelity; and he may send her home whenever he pleases.

The times have changed things a little : a little only because after all the change is on the surface : it is not radical. Now-a-days, when there is a penal code to deal with persons who kill others, the Nāyar cannot keep a concubine of a caste (not a clan) lower than his own without fear of social ex-communication. The killing, except perhaps now and then *sub rosa*, is a thing of the past.

The custom which permits the woman to cohabit with a man, her equal or superior in caste, has been alluded to more than once. I will now make some use of the (Government) Report of the Malabar Marriage Commission, published in 1894, which contains much information which is extremely valuable to the anthropologist and the folklorist, and none the worse for being found together with views and opinions with which he cannot agree. One of the points to which the Commission directed special attention was "as to the customs connected with Hindu marriages in Malabar" and the evidence collected respecting these may be accepted as correct, and the delineation of existing custom may be taken as authoritative. Now the custom which permits the man to cohabit with a woman lower in the social scale than himself prohibits the woman from exercising the same liberty. "This is called the rule of *Anulōmam* and *Pratilōmam*. Dr. Gundert derives *Anulōmam* from *anu* = with + *lōmam* = *rōmam* = the hair : going with the hair or grain. So *Pratilōmam* means "going against the hair or grain." According to this usage a Nāyar woman, consorting with a man of a higher caste follows the hair, purifies the blood, and raises the progeny in social estimation. By cohabitation with a man of a lower division (clan) or caste, she is guilty of *Pratilōmam* ; and, if the difference of caste were admittedly great, she would be turned out of her family to prevent the whole family being boycotted."

Y A corollary of this custom is that a Nambūtiri Brāhman father cannot touch his own children by his Nāyar consort without bathing afterwards to remove the pollution. The children in the Marumakkattāyam family belong, of course, to their mother's family, clan, caste. They are Nāyars, not Nambūtiris ; so the Nambūtiri cannot touch them without pollution.

The rule of *Anulōmam* and *Pratilōmam* appears to be observed with the utmost strictness and thoroughness ; one finds it obtaining between members of the same clan inhabiting different parts of the country. Mention of this was made on page 83, where it was said that a woman of any

anulôman
anulôman
 clan of North Malabar may not consort with a man of the same clan name belonging to South Malabar. Following this principle, the man may do so. A woman of South Malabar (inferior), mating with a man of her own clan name of North Malabar (superior), would be following anulôman; but a woman of North Malabar cannot, under pain of being guilty of pratilôman, mate with a man of her own clan name of South Malabar. Alliances between the people of North Malabar and South Malabar seem to be extremely rare; partly, perhaps, because of this custom which is all compulsive, partly because the Nâyara women of North Malabar cannot cross the river which marks the boundary between the two. Nor, as said before, can the Nâyara women of Chirakkal, the northern-most portion of Malabar, cross the river which lies between it and South Canara to the northward. Thus, they cannot go beyond their northern or southern boundaries. The origin of this interdiction to cross the river southwards has been explained to me as emanating from a command of the Kôlattiri Rajah in days gone by, when, the Arabs having come to the country about Calicut (South Malabar), there was a chance of the women being seized and taken as wives. An explanation which is somewhat fanciful. The prohibition to cross the river to the northwards is supposed to have originated in much the same way, but I have not noted precisely what it is. Again, men of the Kurup clan of Katattanâd may mate with women of the Nambiyâr clan who live in Kôttayam, but they may not mate with women of the Nambiyâr clan living in Chirakkal. The custom imputing superiority or inferiority to those of a clan inhabiting a certain locality is obscure; it has its counterpart elsewhere in Malabar.

"Except the Nambûtiri, the Nâyara has no other priestly, spiritual or religious instructor; and it is for the gratification of this Bhû-dévan (earth god) that the Sudra woman, if she has any religious instruction at all, is taught that she was created." We have heard what Hamilton has said about this (see Bulletin, Vol. III, No. I). Though the first portion of this statement is not quite accurate, for we have seen that the priests and religious instructors of the Nâyars are not admitted to be, strictly speaking, Nambûtiris, yet on the whole it is not far wrong, as the Nambûtiri is esteemed as a very exalted person, and he may ply his music among the Nâyara ladies without very much restriction. As remarked before, the custom is one which makes for improvement of the race, bound up as it is

with the Marumakkattāyam system, which, guided by the anulōmam principle, has fewer hindrances in the way of natural selection than perhaps any other marital custom throughout the world.

The divine commands of Śrī Parasu Rāma, the imputed originator of the Marumakkattāyam system which is followed by 70 per cent. of the people of Malabar, are supposed to be contained in the *Kērala Māhātmyam*, a work in Sanskrit verse, written on the ordinary Malabar grāntham (palm-leaf book). It purports to be a monologue "addressed by the Rishi Garga to Yudhishtira the eldest of the Pāndus." Chapter XLIX relates "how certain celestial damsels were brought from Indra's world by Parasu Rāma to satisfy the sexual cravings of the Kēralam Brāhmanas, and it relates how Parasu Rāma at Vishabhadri (Trichūr), pronounced his commandment to the women (not being of the Brāhman caste) to satisfy the desires of Brāhmanas, enjoining on them to put off chastity and the cloth which covered their breasts, and declaring that, promiscuous intercourse with three or four men in common was void of the least taint of sin." Unfortunately no scholar has given his opinion as to the time when this was written. Most likely it is not very ancient, and may be attributed to device of the Nambūtiris. But it is respected as authoritative. "One of the foremost Nambūtiris in Malabar in respect of wealth, rank, sanctity and learning," in common with the rest of his clan, relied absolutely on it, and informed the Commission: "The Smiriti says the Sūdras' appointed path to heaven is serving the Brahmanas." "The practice of Brahmanas having sexual intercourse with servile (Sūdra) women is in accordance with the Sāstras." "If a Brahman wished to have sexual intercourse with a Sūdra's wife, the Sūdra would be bound to gratify the wish." "A Sūdra cannot be sure of the true parentage of the children born of his wife. Hence the Sūdras cannot follow Makkattāyam"—inheritance in the male line. The Zamorin Maharajah Bahadur informed the Commission that "according to Parasu Rāma chastity should not be observed by non-Brāhman females." Again, the "Ettan Tamburan," one of the senior members of the Zamorin's family, a learned Sanscrit scholar said: "It has been ordained by Parasu Rāma that in Kērala, Marumakkattāyam women need not be chaste;" and he quoted a sloka in proof that there should be no such thing as chastity excepting amongst

the Brâhman women. And the Kolatûr Vâriyâr, a great personage: "A woman is not forbidden from consorting with more than one man. For the Marumakkatâyam people, who reckon their descent in the female line, there is no objection to any cohabitation which does not contaminate the female element."

The opinions which have been quoted are those of persons of the highest position, principals of the oldest families, and give expression to the old-fashioned Malabar custom which they would be the last to condemn. But it must not be imagined that the goddess Lubricity reigns supreme in Malabar. It seems perhaps to have been indicated that she does. Such is, however, not the case. It has been said by one whose long acquaintance with Malabar gives him what we may call admitted right to express authoritative opinion, that, "nowhere else is the marriage tie more jealously guarded, and its breaches more savagely avenged." We shall know more of the subject presently, when we have done with all that pertains to formal union between the sexes. As a matter of fact lubricity has no more followers in Malabar than elsewhere.

The ceremonies surrounding marriage and death seem to be those in which human feelings are deepest, and consequently in these, more than in any others, we see relics of a long gone past; much of the ceremonial being now apparently meaningless, and handed on after the manner of all ceremonial, for no obvious purpose, long after the original signification has been forgotten. Amongst all races of the world it is the same. These form perhaps—for the ceremonies connected with death are interwoven with primitive religious ideas—the closest links between our earlier ancestors and ourselves. The institution marriage itself is not easily liable to change or even modification, and thus it is, perhaps, that it, the product of a bygone age, is not always suited to the wants of the age in which it is found. It is rarely up to date. It is invariably blended with superstitions and restraints which people believe they believe; and the relations between the sexes are rarely natural, i.e., rarely free from restraints which are souvenirs of the past, and which are resented in the present. Of course amongst primitive peoples changes in respect of marital connexions, as also in respect of death ceremonies, are imperceptible. They must be very small indeed in even an immense period; and in their case there is not that

unsuitability to the time in which they exist, which is apparent amongst those societies more liable to change.

But whatever the reasons may be, the relations between the sexes in Malabar are unusually happy. They seem to be more than commonly natural. The most obvious reason for their being so is that they are less influenced by considerations of property than elsewhere. The desire to maintain property within the family is the curse of all natural relations between the sexes. What strange customs has it not put upon mankind! We have some strange examples of these in Southern India, as when a woman is married to the door-post of the house, and the house owner begets children on her to inherit his property; or when a man marries his child to a woman, and himself begets children on her, and the individual who stands in the position of father may be but a few years older than the son. But we need not look farther than Europe for anomalous customs which inhibit the working of the law of natural selection. Malabar is fairly free from unfortunate customs, and it is perfectly fair to say the marital relation amongst the Nâyars is more than commonly natural.

A description of the ceremonies and formalities connected with the marital connexion will now be attempted. The first of these, described as "most peculiar, distinctive, and unique," is the Tâli-kettu-kalayânam. The details of this ceremony vary in different parts of Malabar, but the ceremony itself, in some form, is essential, and must be performed for every Nayar girl before she attains puberty. Tâli-kettu-kalayânam means marriage by tying the tâli, or ceremony of tying the tâli, a small golden ornament, worn on the neck, the ordinary badge of marriage amongst the Dravidian peoples.

The following account was given by M.R.Ry. K. R. Krishna Menon, retired Sub-Judge, to the Commission:—

"The Tâli-kettu-kalayânam is somewhat analogous to what a Dêvadâsi (dancing girl attached to pagodas) of other countries undergoes before she begins her profession. Among royal families, and those of certain Edaprabhûs, a Kshatriya,—and among the Chârna sect, a Nedungâdi,—is invited to the girl's house at an auspicious hour appointed for the purpose, and in the presence of friends and castemen ties tâli round her neck, and goes away after receiving a certain fee for his trouble. Among the other sects, the horoscope of the girl is examined along with those of the boys of her Enangan (a recognised member of one's own clan) families, and the boy whose horoscope is found to agree with her's, is marked out as a fit person to tie the

tâli, and a day is fixed for the tâli-tying ceremony by the astrologer, and information given to the Kāranayan of the boy's family. On the appointed day the boy is invited to a house near that of the girl, where he is fed with his friends by the head of the girl's family. The feast is called 'Ayani Unu,' and the boy is thenceforth called 'Manavālan,' or 'Pillai' bridegroom. From the house in which the Manavālan is entertained, a procession is formed, preceded by men with sword and shield shouting a kind of war-cry. In the meantime a procession starts from the girl's house, with similar men and cries, and headed by a member of her taravād, to meet the other procession, and after meeting the Manavālan, he escorts him to the girl's house. After entering the pandal erected for that purpose, he is conducted to a seat of honour and there his feet are washed by the brother of the girl, who receives a pair of cloths on the occasion. The Manavālan is then taken to the centre of the pandal where bamboo mats, carpets, and white cloths are spread, and seated there. The brother of the girl then carries her from inside of the house, and after going round the pandal three times, places her at the left side of the Manavālan, and the father of the girl then presents a new cloth tied in a kambli to the pair, and with this new cloth (technically called 'mantravadi') they change their dress. The wife of the Kāranayan of the girl's taravād, if she be of the same caste, then decorates the girl by putting anklets, &c. The Purōhita called 'Elayatu,' (a low class of Brahmins) then gives the tâli to the Manavālan, and the family astrologer shouts 'Muhurtam' (auspicious hour), and the Manavālan, putting his sword on the lap, ties tâli round the girl's neck, who is then required to hold an arrow and a looking-glass in her hand. In rich families a Brahmini sings certain songs intended to bless the couple. In ordinary families who cannot procure her presence, a certain Nāyar who is versed in songs performs the office. The boy and the girl are then carried by Enangans to a decorated apartment in the inner part of the house, where they are required to remain under a sort of pollution for three days. On the fourth day they bathe in some neighbouring tank or river, holding each other's hands. After changing cloths, they come home preceded by a procession, which varies in importance according to the wealth of the girl's family. Tom-toms and elephants usually form part of the procession, and saffron water is sprinkled. When they come home the doors of the house are all shut, which the Manavālan is required to force open. He then enters the house, and takes his seat in the northern wing thereof. The aunt and other female friends of the girl then approach, and give sweetmeats to the couple. The girl then serves food to the boy, and after taking their meals together from the same leaf, they proceed to the pandal, where a cloth is severed into two parts, and each part given to the Manavālan and girl separately

in the presence of Enangans and other friends. The severing of the cloth is supposed to constitute a divorce.”/

If, as has been said, the “*pattu*” sung by the Brāhmani, in “*Rig Vēda svaram*,” is in substitution for the Vēdas sung at the Nambūtiri’s wedding—because the Vēdas cannot be used by any but Brāhmans—this part of the ceremonial seems to indicate imitation of the Nambūtiris. The Brāhmani is not however a “Brāhman lady” but merely represents one. In North Malabar she is of the Nambisan caste.

The ceremony is much more analogous to that obtaining in the Bellary district and round about it, through which women, called Basivis, are, after an initiatory ceremony of devotion to a deity, compelled (under certain conditions) to follow no rule of chastity, but whose children are under no degradation, than to the initiation of the Dēvadāsi in her career of harlotry.* It must be said, however, that the ceremony, more especially as modified by poor people, when the Manavālan is represented by a clay figure adorned with flowers, the handiwork of the girl’s mother, looks very like it. But what demands consideration now is the position of Manavālan to the bride. Does the ceremony confer on him any of the rights of a husband? There is much diversity of opinion on the point. Some say it does, while some say it does not. It seems certain that, as a rule, there can be no cohabitation between the two as a mere corollary of the tāli-tying ceremony. Should there be three girls in a family, i.e., in the same taravād house, aged, say, 9, 5 and 3, the ceremony is always done for all three at the same time. The only condition as to age of the girl is that the ceremony must be done before she reaches puberty. The bridegroom (to call him so) is selected after consulting agreement between his horoscope and the girl’s. He is seated beside her in the marriage pandal, and he invests her with the tāli. They eat of the same plantain leaf (used as a plate throughout Malabar). They are placed in the same chamber, to go through the fiction of cohabitation; and on the fourth day the bridegroom severs his connection with the girl, symbolising divorce by cutting into two pieces the cloth (called *kachai* cloth) which she wears. The tearing of the cloth is, however, confined to South Malabar. These are the essentials of the ceremony, an

* An account of the Basivis, their devotion to deities, etc., by the writer will be found in the “Journal of the Anthropological Society of Bombay,” Vol. II., No. 6 (1891).

adjunct to which is that, in spite of the divorce, the girl observes death-pollution when her Manavâlan dies. The same Manavâlan may tie the tâli on any number of girls, during the same ceremony or at any other time; and he may be old or young. He is often an elderly holy Brâhman, who receives a small present for his services. The ceremony is always the occasion of feasting and jollification. The girl may remove the tâli if she likes after the fourth day.

In some parts of Malabar there is no doubt that the man who performs the rôle of Manavâlan is considered to have some right to the girl, but in such a case it has been already considered that he is a proper man to enter into Sambandham with her. It will be as well to remark here that almost invariably amongst the inferior races, the aboriginals so to speak of Malabar, girls are married (their marriage is consummated) before puberty. The fuss that was made a few years ago (by the shrieking sisterhood) about the age of consent has had no effect there.

The tâli-tying ceremony having been performed while the girl is yet a child, the next step in the matter of her alliance with a man is the arrangement of the Sambandham. As a rule nothing more than the consent of the girl and of her guardian, the Kâranavan of the family, is necessary. There is no religious formality. The tâli-tying ceremony dispenses with everything of the kind. There is, however, in some parts a tendency now-a-days "to surround the occasion of first cohabitation with a more or less elaborate ceremonial." It is quite an informal affair, arranged by the Kâranavans of the two families. Many a time a young fellow of 22 or 24, answering my question whether he had contracted Sambandham with any one, replied that the head of his family had not yet arranged a Sambandham for him. The wishes of the contracting parties—for in great measure it is a contract—and of the heads of the families, practically settle the matter. Should the parties find they are unsuited, they part. There is no dragging on under a bondage intolerable to both.

The following account was given by Mr. Chandu Menon (a Nayar) to the Commission. He says :—

"The variations of the Sambandham are the Pûdamuri, Vastradânam, Uzhamporukkuka, Vîtâram Kayaruka, &c., which are local expressions hardly understood beyond the localities in which they are used, but there would be hardly a Malayali who would not readily understand what is meant by *Sambandham*

tudan guga (to begin Sambandham). The meaning of this phrase which means 'to marry' is understood throughout Kéralam in the same way, and there can be no ambiguity or mistake about it.

"It is thus found that Sambandham is the principal word denoting marriage among Marumakkattāyam Nāyars. It will also be found on a close and careful examination of facts, that the principal features of this Sambandham ceremony, all over the Kéralam, are in the main the same. As there are different local names denoting marriage, so there may be found local variations in the performance of the ceremony. But the general features are more or less the same. For instance, the examination, prior to the betrothal, of the horoscopes of the bride and the bridegroom to ascertain whether their stars agree astrologically: the appointment of an auspicious day for the celebration of the ceremony: the usual hours at which the ceremony takes place: the presentation of the *danam* (gifts) to the Brahmans: the sumptuous banquet: the meeting of the bride and the bridegroom,—are features which are invariably found in all well-conducted Sambandhams in all parts of Kéralam alike. But here I would beg to state that I should not be understood as saying that each and every one of the formalities above referred to, are gone through at all Sambandhams among respectable Nāyars, and I would further say that they ought to be gone through at every Sambandham, if the parties wish to marry according to the custom of the country. I would now briefly refer to the local variations to be found in the ceremony of the Sambandham, and also the particular incidents attached to certain forms of Sambandham in South Malabar. I shall describe the Putamuri, or Vastradānam, as celebrated in North Malabar, and then show how the other forms of Sambandham differ from it. Of all the forms of Sambandham I consider the *Putamuri* form the most solemn and the most fashionable in North Malabar. Of course my description will be borne out by the evidence that is before us. The preliminary ceremony, in every Putamuri, is the examination of the horoscopes of the bride and the bridegroom by an astrologer. This takes place in the house of the bride, in the presence of the relations of the bride and bridegroom. The astrologer, after examination, writes down the results of his calculations on a piece of palmyra leaf, with his opinion as to the fitness or otherwise of the match, and hands it over to the bridegroom's relations. If the horoscopes agree, a day is then and there fixed for the celebration of the marriage. This date is also written down on two pieces of cadjan, one of which is handed over to the bride's Kāranavan, and the other to the bridegroom's relations. The astrologer and the bridegroom's party are then feasted in the bride's house, and the former also receives presents in the shape of money or cloth ;

and this preliminary ceremony, which is invariably performed at all Putamuris in North Malabar, is called 'Putamuri Kurikkal,' but is unknown in South Malabar.

Discussed in family
 Ten "Some three or four days prior to the date fixed for the celebration of the Putamuri, the bridegroom visits his Kāranavans and elders in caste to obtain formal leave to marry. The bridegroom on such occasion presents his elders with betel and nuts, and obtains their formal sanction to the wedding. On the day appointed the bridegroom proceeds, after sunset, to the house of the bride, accompanied by a number of his friends. He goes in procession, and is received at the gate of the house by the bride's party, and is conducted with his friends to seats provided in the tekkini, or southern hall of the house. There the bridegroom distributes presents (*danam*) or money gifts to the Brahmans assembled. After this the whole party is treated to a sumptuous banquet. It is now time for the astrologer to appear, and announce the auspicious hour fixed. He does it accordingly, and receives his dues. The bridegroom is then taken by one of his friends to the *padinhatta*, or principal room of the house. The bridegroom's party has, of course, brought with them a quantity of new cloths and betel leaves and nuts. The cloths are placed in the western room of the house, called *padinhatta*, in which all religious and other important household ceremonies are usually performed. This room will be decorated, and turned into a bed-room for the occasion. There will be placed in the room a number of lighted lamps, and *Ashtamangaliam*, which consists of eight articles symbolical of *mangaliam* or marriage. These are rice, paddy, the tender leaves of the cocoanut trees, an arrow, a looking-glass, a well-washed cloth, burning fire, and a small round wooden box called 'cheppu' made in a particular fashion. These will be found placed on the floor of the room aforesaid as the bridegroom enters it. The bridegroom with his groom's-man enters the room through the eastern door. The bride, dressed in rich cloth and bedecked with jewels, enters the room through the western door, accompanied by her aunt or some other elderly lady of her family. The bride stands facing east with the *Ashtamangalyam* and lit-up lamps in front of her. The groom's-man then hands over to the bridegroom a few pieces of new cloth, and the bridegroom puts them into the hands of the bride. This being done, the elderly lady who accompanied the bride, sprinkles rice over the lit-up lamps, and the head and shoulders of the bride and the bridegroom, and the bridegroom immediately leaves the room, as he has to perform another duty. At the tekkini or southern hall. he now presents his elders and friends with cakes, and betel leaf and nuts. Betel and nuts are also given to all the persons assembled at the place. After the departure of the guests the bridegroom retires to the bed-room with the bride.

"This is an unvarnished account of a 'Putamuri.' Next morning the Vettillakettu or Salkáram ceremony follows, and the bridegroom's female relations take the bride to the husband's house, where there is a feasting, &c., in honor of the occasion.

"Úzhamporukkuka, or Vidáram Kayaral is a peculiar form of marriage in North Malabar. It will be seen from the description given above, that the Putamuri is necessarily a costly ceremony, and many people generally resort to the less costly ceremony of Úzhamporukkuka or Vidáram Kayaral. The features of this ceremony are to a certain extent the same as Putamuri; but it is celebrated on a smaller scale. There is no cloth-giving ceremony. The toasting is confined to the relations of the married couple. The particular incident attached to this form of marriage is that the husband should visit the wife in her house, and is not permitted to take her to his house, unless and until he celebrates the regular Putamuri ceremony. This rule is strictly adhered to in North Malabar, and instances in which the husband and wife joined by Úzhamporukkuka, or Vítaram Kayaral ceremony, and with grown-up children being the issue of such marriage, undergoing the Putamuri ceremony some 15 or 20 years after Úzhamporukkuka, in order to enable the husband to take the wife to his house, are known to me personally.

"The Sambandham of South Malabar, and the Kidakkorakalyánam of Palghat have all or most of the incidents of Putamuri, except the presenting of the cloths. Here money is substituted for cloths, and the other ceremonies are more or less the same. There is also *Salkáram* ceremony, wanting in South Malabar as the wives are not at once taken to the husband's house after marriage."

But all this formality and ceremonial is not the rule. The Sambandham is always a matter for careful arrangement, in which the wishes of the parties to it are considered, and which it is expected will bring mutual benefit to the two Taraváds concerned.

Local. In South Malabar the girl or woman never lives in her husband's house; she lives on in her own Taravád house and is there visited by her husband. The ordinary huggermugger, which sometimes stultifies all pleasure in existence, is thus avoided. In North Malabar the woman lives in the house with her husband. A point to be noted in this connection is that, when her husband dies, she must leave his house and return to her own at once, before his body is carried out. According to the Kêrala Mâhâtmyam the women in North Malabar (should) live with but one man at a time.

We still, after the manner of children, confound words with things, so it is not surprising that the unfortunate Commission arrived at the conclusion that the institution of

marriage was and is entirely absent from the Marumakkattāyam system. "The parties do not plight troth, and do not call God to witness their union." And so forth. But with this conclusion, suitable enough to the high-flown moralist or to the restless beings who would regardlessly sweep away the long results of time and improve on the process of natural development, imposing fanciful arrangements of their own, the anthropologist cannot at all agree. The Sambandham, a regularly formed, and certainly not haphazard alliance between a man and a woman, having the full sanction of the community, is marriage in every sense of the word. If the tāli-tying ceremony gave the girl free liberty, we might well suspect that the Sambandham followed a ceremony, not a marriage ceremony. But such is by no means the case, for, should the woman who is unmarried, for whom Sambandham has not been arranged, or whose husband, the man with whom she had had Sambandham, is dead—there is no such thing as widowhood,—bear a child, she is disgraced, much as is the Brāhman widow under the same circumstances.

(H. S. S. S. S.)
What then is the meaning of the assertions of the exponents of the orthodox view that the women need not be chaste; and so on? The question is not an easy one to answer, but I think we may say with confidence that this orthodox view has been, in some measure, propounded by the Nambūtiris for their own gratification. I have myself known several tragedies arising out of unfaithfulness, and I believe the old fashioned code of custom admitted the right of the husband to kill his wife's lover if he could, and also to kill his wife. No doubt in a great many cases the pair bound together in Sambandham lead lives ordinarily chaste. I do not, however, think that in actuality such is the rule with either party any more than it is in any other community, and sexual affairs are often treated lightly. With taste and consideration too. Hamilton, who arrived at Calicut in 1702, and spent some twenty odd years on the coast, writes thus in speaking of the Nāyars:—"When the man visits the woman he lays down his arms at the door; but, if there are no arms at the door, any acquaintance may visit her. To visit the house when there are arms at the door, or remove them, is death." Now-a-days a man leaves his shoes outside the door. Equality of the sexes in all sexual matters, the man and woman being on terms of equality, having equal freedom, is certainly an uncommon merit in the Marumakkattāyam system. Either party may

terminate the union—even after one night of hymeneal bliss; and those who are unsuited to each other sexually, or in the way of temperament, in fact in any way, may put an end to their union and turn towards other partners. It may be thought that this liberty induced perpetual change, so it is as well to state here that it does nothing of the kind. Mere arbitrary divorce is very rare. Permanent attachment is the rule. The basis of the system seems to be that the Taravád estate is held in trust for the support of the females and of their descendants in the female line. This trust is placed in the hands of the Káranavan, the senior male member of the Taravád who is the legal guardian of every member of it, and whose control of the Taravád property is absolute. The odd feature in the Marumakkattáyam system is that a man has his nephews about him in the house, and not his sons. He lives in one house, while his wife and family live in another. That is, in South Malabar; in North Malabar they live together.

When we come to consider the degrees of relationship within which marriage is prohibited, we find the rule is that persons descended from a common female ancestor are not at liberty to marry. Those of the same Taravád can never intermarry; but this prohibition does not of course extend to the children of a brother and a sister, who are naturally of different Taraváds. Again, the principle that “no member of the Taravád of a deceased wife or husband (is) eligible as the second wife or husband is true only as far as the woman is concerned; for a man may marry a woman of his deceased wife’s Taravád. But he who does this is not in harmony with social sentiment.” We find this observance amongst the forest Múppans of Wynád. In the case of a man’s wife dying, I found that a Múppan could not take another wife from her family.

The rule does not interfere with union between the children (or their descendants) of a brother and sister, such children belonging of course, under the Marumakkattáyam system, to different Taraváds. We have seen already, when speaking of the Nambûtiris, that this rule of marriage between the children of a brother and sister, never between the children of two brothers or two sisters, is general throughout Southern India. It seems to be common, though there are exceptions, to the Bráhmans and the peoples commonly called Dravidian, with most of whom it is the most fitting marital union.

*Variations
in Sambandham*

It will be interesting to add here a note on Sambandham as it is amongst the Akattu Chârna, or Akathithaparisha Nâyars (Akattu inside, parisha class),* by one of themselves. The members of this clan being devoted to indoor services, chiefly writing and casting accounts. To those of the sub-clan attached to the Zamorin who were sufficiently capable to earn it, he gave the titular honour "Mênon," to be used as an affix to the name. The title Menon is in general hereditary, but, be it remarked, many who now use it are not entitled to do so. Properly speaking only those whose investiture by the Zamorin or some other recognized chief is undisputed, they or their descendants (in the female line of course), may use it. Those invested pay a small fee to the Zamorin. A man known to me was invested with the title Mênon in 1895 by the Karimpuzha chief, who in presence of a large assembly said thrice "From this day forward I confer on Krishnan Nayar the title of Krishna Mênon." Now-a-days be it said, the title Mênon is used by Nâyars of clans other than the Akattu Chârna. Those who belong to the sub-clan who owe Lordship to the Zamorin look to him even now to settle their caste disputes, and for permission to perform the tâlikettu and other important ceremonies. The ceremony to be described is that of this sub-clan.

As the old order changeth giving place to new in the distribution of the honourable affix "Mênon," so too doth it change even in such an important piece of life as marriage, or what under another name means the same thing amongst the Nâyars. It is truly sad to read of celebration of a Sambandham ceremony at Calicut whereat there was cake and wine for the guests, and (shades of all the departed!) a ring for the bride. The departure from national and therefore rational custom, for adoption of that which is neither custom nor ceremonial when copied meaninglessly, is surely food for painful reflection.

The ceremony to be described is not one of cake and wine, for the doings of people who have reached that bathos have little interest to the anthropologist, though they may have some to the *observer* of social diversions, but the genuine ceremony as done in orthodox fashion in South Malabar

* For this note I am indebted to Mr. O. P. Raman Menon, B.A., a prominent Police official of Calicut.

without modern adornment will now be described. My informant says in the first place the man should not enter into Sambandham with a woman until he is 30. Now-a-days, when change is running wild, the man is often much less. In North Malabar, which is much more conservative than the south, it was, however, my experience that Sambandham was rare before 27 on the side of the man. And now to continue with the Note.* "The Kāranavan and the women † of his household choose the bride, and communicate their choice to the intending bridegroom through a third party; they may not, dare not speak personally to him in the matter. He approves. The bride's people are informally consulted, and if they agree, the astrologer is sent for, and examines the horoscopes of both parties to the intended union. As a matter of course these are found to agree, and the astrologer fixes a day for the Sambandham ceremony. A few days before this takes place two or three women of the bridegroom's house visit the bride, intimating beforehand that they are coming. There they are well treated with food and sweetmeats, and when on the point of leaving they inform the senior female that the bridegroom (naming him) wishes to have Sambandham with—(naming her), and such and such a day is auspicious for the ceremony, the proposal is accepted with pleasure and the party (from the bridegroom's house) returns home."

Preparations for feasting are made in the house of the bride as well as in that of the bridegroom on the appointed day. To the former all relations are invited for the evening, and to the latter a few friends who are much of the same age as the bridegroom (for elders never accompany him) are invited to partake of food at 7 or 8 P.M. and accompany him to the bride's house. After eating they escort him, servants carrying betel leaves (one or two hundred according to the means of the Taravād), areca nuts and tobacco, to be given to the bride's household, and which are distributed to the guests. When the bride's house is far away the bridegroom makes his procession thither from a neighbouring house. Arrived at the bride's house they sit a while and are again served with food, after which they are conducted to a room where betel and other chewing stuff is placed on brass or silver

* Of which what follows is an abstract.

† My correspondent uses the word "ladies." I prefer women, a finer word.

plates (called thālam). The chewing over, sweetmeats are served, and then all go to the bridal chamber, where the women of the house and others are assembled with the bride, who, overcome with shyness, hides herself behind the others. Here again the bridegroom and his party go through more chewing while they chat with the women. After a while the men withdraw, wishing the couple all happiness; and then the women, departing one by one leave the couple alone, one of them shutting the door from the outside.

"The Patter Brāhmans always collect on these occasions and receive small presents (dakshina) of 2 to 4 annas each, with betel leaf and areca nut from the bridegroom, sometimes from the bride. A few who are invited receive their dakshina in the bridal chamber; the others outside. [In a Nāyar house the sleeping rooms of the men and women are separate : at different ends of the house.] Those of the bridegroom's party who live far away are given sleeping accommodation at the bride's house, with the men. About daybreak next morning the bridegroom leaves the house with his party, leaving under his pillow Rs. 8, 16, 32, or 64, according to his means, but never more than 64, which are intended to cover the expenses of the wife's household on the ceremony. The Sambandham is now complete. The girl remains in her own Taravād house, and her husband visits her there, coming in the evening and leaving the next morning. A few days after completion of the ceremony the senior woman of the bridegroom's house sends some cloths, including pavu mundu (superior cloths) and thorthu mundu (towels) and some oil to the bride for her use for six months. Every six months she does the same, and on festivals of the Ōnam Vishu, Thiruvathira she sends besides a little money, areca nut, betel nut and tobacco. The money sent should amount to Rs. 4, or 8, or 16, or 32, or 64; either one of these sums. Sums of the higher numbers are very rarely sent.

"Before long the women of the husband's house express a longing for the girl-wife to be brought to their house, for they have not seen her yet. Again the astrologer is requisitioned, and, on the day he fixes, two or three of the women go to the house of the girl-wife, the Ammāyi as they call her (literally "uncle's wife"). They are well treated, and presently bring away the girl with them. As she is about to enter the gate house of her husband's Taravād, the stile of which she crosses right leg first, two or three of the women

meet her, bearing a burning lamp and a brass plate (*tālam*) and precede her to the *nalukattu* of the house. There she is seated on a mat, and a burning lamp and a *nazhi* (1 measure) of rice and some plantains are placed before her. One of the younger women [married or not I cannot say] takes up a plantain and puts a piece of it in the *Ammāyi*'s mouth; a little ceremony called *Madhuram 'lītal*, or giving the sweets for eating. She lives in her husband's house for a few days and is then sent back to her own with presents, bracelets, rings or cloths, gifts of the senior woman of the house. After this she is at liberty to visit her husband's house on any day, auspicious or inauspicious.

"In a big *Taravād*, where there are many women, the *Ammāyi* does not, as a rule, disperse sympathy and good will in the household, and if she happens to live temporarily in her husband's house, as is sometimes though very rarely the case in South Malabar, and to be the wife of the *Kāranavan*, it is observed that she gets more than her share of whatever good things may be going; hence the proverb '*Ammāyi Ammayē Kallinmel Vechchittu Mattoru Kallu Kondu Nārāyana*'—'Place *Ammāyi Amma* on a stone and grind her with another stone'."

Yet one more extract—a reference taken from my notes. The Rev. S. Mateer, author of a well-known book on Travancore, where he resided something over a quarter of a century I think, informed me ten years ago—he was speaking of polyandry amongst the *Nāyars* of Travancore—that he had "known an instance of 6 brothers keeping 2 women 4 husbands to one, and 2 to the other. In a case where 2 brothers cohabited with one woman and one was converted to Christianity, the other brother was indignant at the Christian's refusal to live any longer in this condition." I have not known an admitted instance of polyandry amongst the *Nāyars* of Malabar at the present day, but there is no doubt that if it does not exist now (and I think it does here and there): it certainly did not long ago. Polyandry exists amongst other castes, as we shall see by and by.

We must now leave the subject of marriage, which, simple though it is, is like most simple things extremely difficult to describe. The marital relation of the *Nāyar* is a very natural and simple affair; yet it is the *point d'appui* of that system of inheritance though women which was once much more common than it is now.

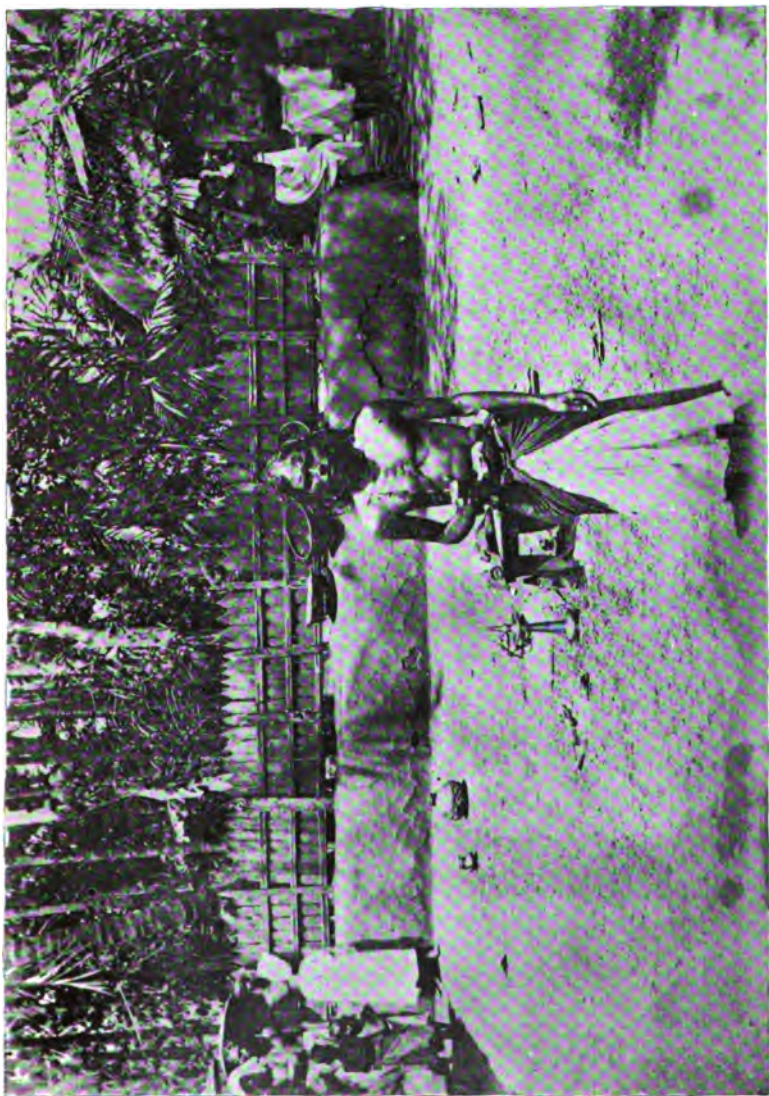
Let us hope it will remain unchanged, and that the Nâyâr will be able to say always (in his own tongue), with more regard for concrete truth than poetic insight "Das ewig' weibliche ziet uns hinan."

BIRTH: ANTE-NATAL AND AFTER CEREMONIES.

The following very interesting note on the ceremonies connected with birth, those preceding it as well as those following it, has been very kindly given me by Mr. U. Balakrishnan Nâyâr; so I quote his own words:—

"A Nâyâr woman has to observe certain ceremonies during pregnancy. First, during and after the seventh month of pregnancy, she (at least, among the well-to-do class) bathes, and worships in the temple, every morning; and eats before her morning meal, a small quantity of butter over which holy *mantrams* have been said by the temple priest or by Nambâtiris. This is generally done till delivery.

"*Puli-kuti*.—Another and even more important ceremony during pregnancy is the *puli-kuti* (lit., drinking tamarind juice). This is an indispensable ceremony, performed by the rich and poor alike, on a particular day in the ninth month. The day, nay, even the very hour is fixed by the local astrologer. The ceremony begins by the planting of a twig of the *ampasham* tree, on the morning of the day of the ceremony, in the principal courtyard (*natu-muttom*) of the *Taravâd*. At the appointed hour or *muhûrtam*, the pregnant woman, after having bathed and properly attired, is conducted to a particular portion of the house (*vatakini* or northern wing), where she is seated, facing eastwards. The *Ammayi* or 'uncle's wife', whose presence on the occasion is essential, goes to the courtyard and plucking a few leaves of the planted twig, squeezes a few drops of its juice into a cup. This she hands over to the brother, if any, of the pregnant woman. It is necessary that the brother should wear a gold ring on his right hand ring finger. Holding a country knife (*pissan kathi*) in his left hand, which he directs towards the mouth, he pours the tamarind juice over this knife with his right hand three times, which dribbles down the knife into her mouth, and she drinks it. In the absence of a brother, some other near relation officiates. After she has swallowed the tamarind juice, she is asked to pick one out of several packets of different grains placed



A VELICHCHAPPAD.

before her. The grain in the packet she happens to select is supposed to declare the sex of the child in her womb. The whole ceremony is wound up by a sumptuous feast to all the relatives and friends of the family.

"*After Ceremonies.*—At delivery, women of the barber caste officiate as midwives. In some localities, this duty is performed by *Vêla* caste women. Pollution is observed for fifteenth days, and on every day, the mother wears cloths washed and presented her by a *Vannatti* or woman of the Vannan* caste. On the fifteenth day is the purificatory ceremony. As in the case of death pollution, a man of the Atikkurissi clan sprinkles on the woman a liquid mixture of oil, and the five products of the cow (*pancha gavya*), with gingelly seeds. Then the woman takes a plunge-bath and sits on the ground, near the tank or river. Some woman of the family, with a copper vessel in her hands, takes water out of the tank or river, and pours it on the mother's head as many as twenty-one times. (I am not aware if this practice is universal, though it certainly obtains in parts of South Malabar and even in North Travancore.) This done, she again plunges herself in the tank or river, from which she emerges thoroughly purified. ←

"It may be noticed that, before the mother proceeds to purify herself, the new-born babe has also to undergo some rite of purification. The babe is placed on the naked floor, and its father or uncle sprinkles a few drops of cold water on it and takes it in his hands. The superstitious believe that the temperament of the child is determined by that of the person who thus sprinkles the water. All the members of the *Taravâd* observe pollution for fifteen days immediately following the delivery, during which period they are prohibited from entering temples and holy places. ↻

"*First Birthday Celebration.*—The twenty-seventh day after the child's birth or the first recurring day of the star under which it was born marks the next important event. On this day, the *Kāranācan* of the family gives to the child a spoonful or two of milk, mixed with sugar and slices of plantain. Then he names the child and calls it in the ear by the name † three times. This is followed by a feast to all ↻

* Over a great part of Malabar she would, however, be of the *Tiyan* caste.

† In some places, the child is named only in the sixth month on the *chôran* day.

✓ friends and relatives, the expenses of which are necessarily met by the father of the child.

① → “*Chórún or First Meal of Rice.*—As is usual with the Náyár every event is introduced by a ceremonial. The first meal of rice partaken by the child forms no exception to the rule. It must be remembered that the child is not fed on rice for some time after birth; the practice being to give it flour of dried plantain boiled with jaggery. There is a particular variety of plantain, known as *kunman*, used for this purpose. The staple food of the Malayali, rice, is given the child, for the first time, generally during the sixth month, and is attended, of course, with some ceremonial. Necessarily, the astrologer fixes the day; and at the auspicious hour, the child, bathed and adorned with ornaments (which it is the duty of the father to provide) is brought and laid on a plank. A plantain-leaf is spread in front of it and a lighted brass lamp, placed near. On the leaf are* served a small quantity of cooked rice—generally a portion of the rice offered to some temple divinity—some tamarind, salt, chillies, and sugar. Then the *Káranavan* or the father, ceremoniously approaches and sits down facing the child. First, he puts in the mouth of the child a mixture of the tamarind, chillies and salt; then some rice; and lastly a little sugar.

② → “Thenceforward, the ordinary food of the child is rice. It is usual on this occasion for relatives (and especially for the ‘*bandhus*,’ such as the *Ammâyi* or ‘uncle’s wife’) to adorn the child with gold bangles, rings and other ornaments. The *chórúnu* or rice-giving ceremony is, in some cases, preferably performed in some famous temple, that at Guruváyûr being a favourite one for this purpose.

③ → “*Child-birth—Position during.*—When a Náyár woman is about to be delivered of a child, she is placed in a reclining position on a low wooden couch (*Kottotam*), her back supported by a companion, generally an old woman. The *kottotam* is very like, if not identical with, the couch on which the Náyár has his oil bath. The surface of it is sloping, the higher end being where the head is laid, and it is scooped out so as to suit the curvatures of the body lying flat.† Lying on her back, her head is raised and the thighs

* In some places, all the curries, etc., prepared for the attendant feast are also served.

† Every Náyár, and for the matter of that, every Malayali, has an oil bath about once a week or as often as he can afford. The person is well shampooed with gingelly oil.

are stretched wide apart. Very often she holds in each hand a rope suspended from the ceiling, by way of support. The child is received by a woman of the barber caste."

DEATH AND SUCCEEDING CEREMONIES.

When the dying person is about to embark for that bourne from which no traveller returns, when the breath is about to leave his body, the members of the household, and all friends who may be present, one by one pour a little water, a few drops from a tiny cup made of a leaf or two of the tulusi plant, into his mouth, holding in the hand a piece of gold or a gold ring; the idea being that the water should touch gold ere it enters the mouth of the person who is dying. If the Taravád is rich enough to afford it, a small gold coin, (a Râsi fanam, if one can be procured *) is placed in the mouth, and the lips are closed. As soon as death has taken place, the corpse is removed from the cot or bed, and carried to the vatakkini (a room in the northern end of the house) where it is placed on long plaintain leaves spread out on the floor; and while it is in this room, whether by day or by night, a lamp is kept burning, and one member of the Taravád holds the head in his lap and another the feet in the same way; and here the neighbours come to take a farewell look at the dead.

As the Malayâlis believe that disposal of a corpse by cremation or burial as soon as possible after death is conducive to the happiness of the spirit of the departed, no time is lost in setting about the funeral. The bodies of senior members of a Taravád, male or female, are burned; those of children under two are buried; so too are the bodies of all persons who have died of cholera or small-pox.† When preparations for the funeral have been made, the corpse is removed to the natumuttam or central yard of the house if there is one (there always is in the larger houses), and, if there is not, is taken to the front yard where it is again laid on plantain leaves. It is washed and anointed, the usual marks are made with sandalwood paste and ashes as in life, and it is neatly clothed. There is then done what is called the Potavekkuka ceremony or placing new cotton cloths (kóti mundu) over the corpse by the senior member of the (deceased's) Taravád followed by all the other members.

* These are now rare.

† It is the same amongst the Khonds of Ganjâm.

also sons-in-law and daughters-in-law, and all relatives. These cloths are used for tying up the corpse when being taken to the place of burial or cremation. In some parts of Malabar the corpse is carried on a bier made of fresh bamboos, tied up in these cloths, while in others it is carried (well covered in the cloths) by hand. In either case it is carried by the relatives. Before the corpse is removed there is done another ceremony called *Para Virakkuka* (filling up *pâras*—a *pâra* is a measure nearly as big as a gallon). All adult male members of the Taravâd take part in it under the direction of a man of the Atikkurissi clan (who occupies the position of director of the ceremonies during the next fifteen days, receiving as his perquisite all the rice and other offerings made to the deceased's spirit). It consists in filling up three *pâra* measures with paddy, and one *edangâli* ($\frac{1}{10}$ of a *pâra*) with raw rice. These offerings of paddy and rice are placed very near the corpse, together with a (burning) lamp of the kind commonly used in Malabar, called *nela villâku*. If the Taravâd is rich enough to afford one, a silk cloth is placed over the corpse before removal for cremation.

As much fuel as is necessary having been got ready at the place of cremation, a small pit about the size of the corpse is dug, and across this are placed three long stumps of the plantain tree, one at each end, one in the middle; on which as a foundation the pyre is laid. The whole, or at least a part of the wood used should be that of the mango tree. As the corpse is being removed to the pyre, the senior Anandravan * who is next in age (junior) to the deceased, tears from one of the new cloths laid on the corpse a piece sufficient to go round his waist, ties it round his waist, and holds in his hand, or tucks into his cloth at the waist a piece of iron, generally a long key. This individual is throughout *chief* among the offerers of "*pindam*" (balls of rice) to the deceased.

The corpse is laid on the bier, with the head to the south, with the fuel laid over it and a little camphor, sandalwood and ghee, if these things are within the means of the Taravâd. Here must be stated the invariable rule that no member of the Taravâd, male or female, who is older than the deceased shall take any part whatever in the ceremony,

* The eldest male member of the Malabar Taravâd is called the *Kâranavan*, as noted already (Bulletin, Vol. III, No. 1); all male members, brothers, nephews and so on, who are junior to him are called *Anandravans* of the Taravâd.

or in any subsequent ceremony following on the cremation or burial. All adult males junior to the deceased should be present when the pyre is lighted. The deceased's younger brother, or, if there is none surviving, his nephew (his sister's eldest son), sets fire to the pyre at the head of the corpse. If the deceased left a son, this son sets fire at the same time to the pyre at the feet of the corpse. In the case of the deceased being a woman, her son sets fire to the pyre; failing a son the next (junior) in age to her has the right to do it. It is a matter of great importance that the whole pyre burns at once: the greatest care is taken that it burns as a whole, consuming every part of the corpse. While the corpse is being consumed, all the members of the deceased's Taravād who carried it to the pyre go and bathe in a tank (there is always one in the compound or garden around every Nāyar's house); the eldest, he who bears the piece of torn cloth and the piece of iron (the key), carries an earthen pot of water, and all return together to the place of cremation. It should be said that on the news of a death the neighbours assemble, assisting in digging the grave, preparing the pyre, and so on, and, while the members of the Taravād go and bathe, those remain near the corpse. By the time the relatives return it is almost consumed by the fire, and the senior Anandravan carries the pot of water thrice round the pyre, letting the water leak out by making holes in the pot as he walks round. On completing the third round, he dashes the pot on the ground close by where the head of the dead had been placed. A small image of the deceased is then made out of raw rice * representing the deceased, and to this image a few grains of rice and gingelly seeds are offered. When this has been done the relatives go home and the neighbours depart, bathing before entering their houses.

When the cremation has been done by night, the duty of Sêshakriya (making offerings to the deceased's spirit) must be begun the next day between 10 and 11 A.M. and is done on seven consecutive days. In any case the time for this ceremony is after 10 and before 11 and it continues for seven days. It is performed as follows. All male members of the Taravād younger than the deceased go together to a tank and bathe, i.e., they rouse themselves in the water, and return to the house. The eldest of them, the man who tore off the strip of cloth from the corpse, has with

* The ceremony is called Veli Unka (?)

him the same strip of cloth and the piece of iron, and all assemble in the central courtyard of the house, where there has been placed ready by an Enangan—(one of the Taravâd—of the same clan or sub-clan as that of the deceased: marriage must be admissible between the two Taravâds)—some rice which has been half boiled, a few grains of gingelly, a few leaves of the cherûla,* some curds, a smaller measure † of paddy, and a smaller measure ‡ of raw rice. These are placed in the north-east corner with a lamp of the ordinary Malabar pattern. A piece of palmyra leaf, about a foot or so in length and the width of a finger, is taken, and one end of it knotted; the knotted end is placed in the ground, and the long end is left sticking up. This represents the deceased. The rice and other things are offered to this. The belief concerning this piece of palmyra leaf is explained thus: There are in the human body ten humours:—Vâyús; Prânan; Apânan; Samânan; Ūdânan; Vyânan; Nâgan; Kûrman; Krikalan; Dêvadattan; Dhananjayan. These are called Dasavâyû, i.e., ten airs. When cremation was done for the first time, all these excepting the last, were destroyed by the fire. The last one flew up and settled on a palmyra leaf. Its existence was discovered by some Brâhman sages who, by means of mantrams (magic), forced it down to a piece of palmyra leaf on the earth. So it is thought that, by making offerings to this (Dhananjayan) leaf for seven days, the spirit of the deceased will be mollified, should he have any anger to vent on the living members of the Taravâd.

The place where the piece of leaf is to be fixed has been cleaned carefully, and the leaf is fixed in the centre of this prepared surface. The offerings made to it go direct to the spirit of the deceased, and the peace of the Taravâd is ensured. The men who have bathed and returned have brought with them, plucked on their way back to the house, some grass (karuka pullu); they kneel in front of the piece of palmyra, with the right knee on the ground. Some of the grass is spread on the ground near the piece of leaf, and rings made with it are placed on the ring finger of the right hand by each one present. The first offerings consist of water, sandalwood paste and leaves of the cherûla: the eldest of the Anandravans leading the

* *Ærna lanata* belonging to the natural order Acanthaceæ.

† An Edangâli: about the size of a quart.

‡ A nashi: about ‡ a pint.

way. Boys need not go through the actual performance of offerings; it suffices for them to touch the eldest as he is making his offerings. The half-boiled rice is made into balls (pindams) and each one present takes one of these in his right hand and places it on the grass near the piece of palmyra leaf. Some gingelly seeds are put into the curd, which is poured so as to make three rings round the pindams. It is poured out of a small cup made with the leaf on which the half-boiled rice had been placed. It should not be poured from any other kind of vessel. The whole is then covered with this same plantain leaf, some lighted wick is waved, and some milk is put under the leaf. It is undisturbed for some moments, and the leaf is tapped gently with the back of the fingers of the right hand. The leaf is then removed and torn in two at its midrib, one piece being placed on either side of the pindams. The ceremony is then over for the day. The performers rise, and remove the wet clothing they have been wearing.

Handwritten: The eldest of the Anandravans should, it was omitted to mention, be kept somewhat separated from the other Anandravans while in the courtyard, and before the corpse is removed for cremation; a son-in-law or a daughter-in-law, or some such kind of relation remaining, as it were, between him and them. He has had the piece of cloth torn from the covering of the corpse tied round his waist, and he has had the piece of iron (usually a key) in the folds of his cloth, or stuck in his waist during the ceremony which has just been described. Now, when it has been completed, he ties the piece of cloth to the pillar of the house nearest to the piece of palmyra leaf which has been stuck in the ground, and puts the piece of iron in a safe place. The piece of palmyra leaf is covered with a basket. It is uncovered every day for seven days at the same hour, while the same ceremony is repeated. The balls of rice (pindams) are removed by women and girls of the Taravād who are junior to the deceased. They place them in the bell-metal vessel in which the rice was boiled. The senior places the vessel on her head, and leads the way to a tank, on the banks of which the rice is thrown. It is hoped that crows will come and eat it; for if they do, the impression is received that the deceased's spirit is pleased with the offering; but if somehow it is thought that the crows will not come and eat it, the rice is thrown into the tank. Dogs are not to be allowed to eat it. The women bathe after the rice has been thrown away.

When the ceremony which has been described has been performed for the seventh time, i.e., on the seventh day after death, the piece of palmyra leaf is removed from the ground, and thrown on the ashes of the deceased at the place of cremation. During these seven days no member of the Taravád goes to any other house. The house of the dead and all its inmates are under pollution; no outsider enters it but under ban of pollution, which is, however, removable by bathing. A visitor entering the house of the dead during these seven days must bathe before he can enter his own house. During these seven days the Kâranavan of the family receives visits of condolence from relatives and friends to whom he is "at home" on Monday, Wednesday or Saturday. They sit and chat, chew betel and go home, bathing ere they enter their houses.

It is said that in some parts of Malabar the visitors bring with them small presents in money or kind to help the Kâranavan through the expenditure to which the funeral rites necessarily put him.

To hark back a little, it must not be omitted that on the third day after the death, all those who are related by marriage to the Taravád of the deceased combine and give a good feast to the inmates of the house and to the neighbours, who are invited, one man or one woman from each house. The person so invited is expected to come. This feast is called Patni Karigi. On the seventh day a return feast will be given by the Taravád of the deceased to all relatives and neighbours.

Between the seventh and fourteenth day after death no ceremony is observed; but the members of the Taravád remain under death pollution, and then on the fourteenth day comes the Sanchayanam. It is the disposal of the calcined remains; the ashes of the deceased. The male members of the Taravád go to the place of cremation and, picking up the pieces of unburnt bones which they find there, place these in an earthen pot which has been sun-dried—not burnt by fire in the usual way—cover up the mouth of this pot with a piece of new cloth, and, all following the eldest who carries it, proceed to the nearest river (it must be running water), which receives the remains of the dead. The men then bathe and return home. In some parts of Malabar the bones are collected on the seventh day, but it is not orthodox to do so. Better by far than taking the remains to the nearest river is it to take them to some specially sacred place, Benares,

Gâya, Bamêsvaram, or even to some place of sanctity much nearer home, as to Tirunelli in Wynâd, and there dispose of them in the same manner. The bones or ashes of any, one having been taken to Gâya and there deposited in the river, the survivors of the Taravâd have no need to continue the annual ceremony for that person. This is called "Ashtagâya Shraddham." It puts an end to the need for all earthly ceremonial. It is believed that the collection and careful disposal of the ashes of the dead gives peace to his spirit, and, what is more important, the pacified spirit will not thereafter injure the living members of the Taravâd, cause miscarriage to the women, possess the men (as with an evil spirit), and so on.

Then on the fifteenth day after death is the purificatory ceremony. Until this has been done, any one touched by any member of the Taravâd should bathe before he enters his house or partakes of any food. A man of the Athikkurisi clan officiates. He sprinkles milk oil in which have been put some gingelly seeds (all together) over the persons of those under pollution. This sprinkling and the bath which follows it removes the death pollution. The purifier receives a fixed remuneration for his offices on this occasion, as well as when there is a birth in the Taravâd. ←

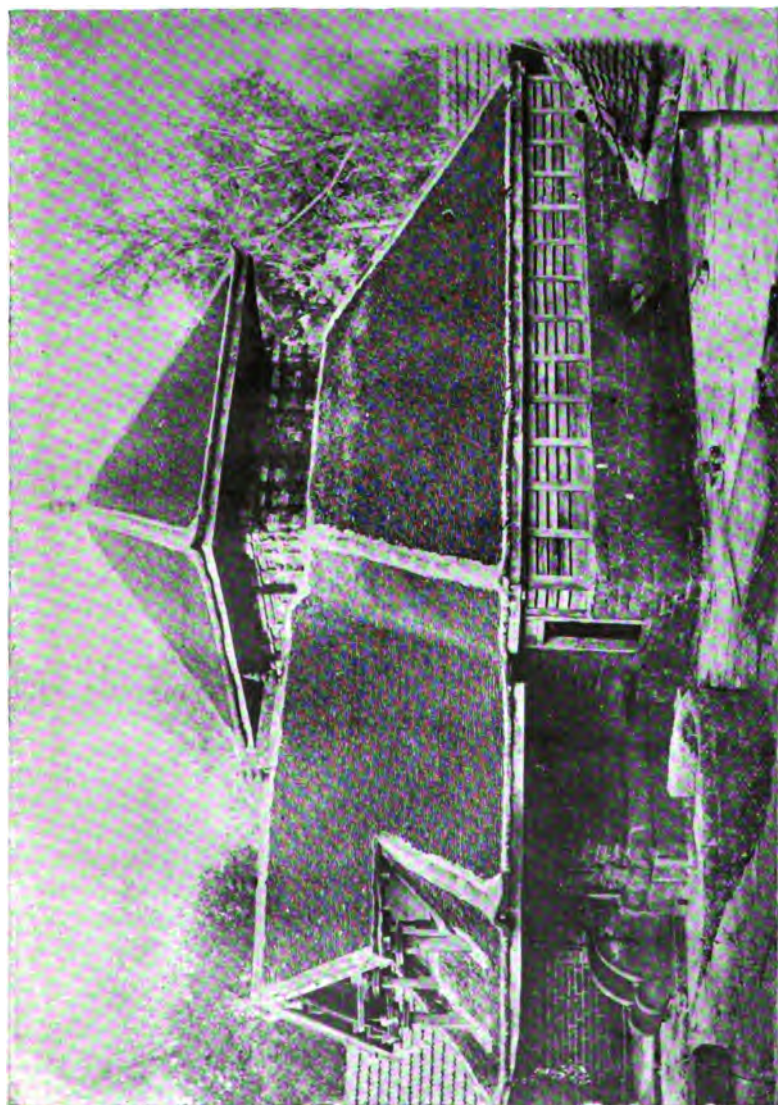
In the case of death of a senior member of a Taravâd, well-to-do and reckoned as of some importance, there is the feast called Pinda Atiyantaram on the sixteenth day after death, given to the neighbours and friends. The word neighbours, as used here, does not mean those who live close by, but, owing to the custom of Malabar under which each house is in its own paramba (garden or enclosure) which may be a large one, those of the caste living within a considerable area round about. I am not sure whether in connection with these ceremonies there is mutual assistance in preparation for the funeral; or whether there is any recognized obligation between members of the same amsham, dêsam or tara; or whether this kind of mutual obligation obtains generally between any Taravâd and those of the caste round about, irrespective of boundaries. With the observance of the Pinda Atiyantaram or feast of pindams, there is involved the Diksha, or leaving the entire body unshaved for 41 days, or for a year. There is no variable limit between 41 days or a year. Forty-one days is permissible as the period for the Diksha, but a year is correct. The 41-day period is the rule in North Malabar.

I have seen many who were under the Diksha for a year. He who lets his hair grow may be a son or nephew of the deceased. One member only of the Taravād bears the mark of mourning by his growth of hair, remarkable enough in Malabar where every one as a rule, excepting the Māppila Muhammadans (and they shave their heads), shaves his face, head (except the patch on the crown) chest and arms, or at any rate his wrists. He who is under the Diksha offers half-boiled rice and gingelly seeds to the spirit of the deceased every morning after his bath; and he is under restriction from women, from alcoholic drinks, and from chewing betel, also tobacco. When the Diksha is observed, the ashes of the dead are not deposited as described already (in the sun-dried vessel) until its last day—the forty-first or a year after death. When it is carried on for a year there is observed every month a ceremony called * Bali. It is noteworthy that, in this monthly ceremony and for the conclusion of the Diksha, it is not the thirtieth or three hundred and sixty-fifth day which marks the date for the ceremonies, but it is the day (of the month) of the star which was presiding when the deceased met his death: the returning day on which the star presides.

For the *Bali, a man of the Elāyatu caste officiates. It has been said already ("Nambūtiri Brāhmans": Bulletin, Vol. III, No. I), that the Elāyatus are priests for the Nāyars. They wear the Brāhman's thread, but they are not Brāhmans. They are not permitted to study the Vēdas, but to the Nāyars they stand in the place of the ordinary Purōhit. The officiating Elāyatu prepares the rice for the Vēli when the deceased, represented by Karuka grass, is offered boiled rice, curds, gingelly seeds, and some other things. The Elāyatu should be paid a rupee for his services, which are considered necessary even when the man under Diksha himself is familiar with the required ceremonial.

The last day of the Diksha is one of festivity. After the *Bali the man under Diksha is shaved. All this over, the only thing to be done for the deceased is the annual srashdham, or yearly funeral commemorative rite. Rice balls (pindams) are made and given to crows. Clapping of hands announces to these birds that the rice is being thrown for them, and, should they come at once and eat it, it is obvious that the spirit of the deceased is pleased with the offering, and is not likely to be troublesome. But, on the

* Or Bali.



BHAGAVATI TEMPLE, PANDALUR.

other hand, should they not come and eat, it is evident that the spirit is displeased, and the Taravád had better look out.

The ceremonial connected with the funeral rites which have been described, illustrates the immense difference which exists, as it does in the case of all peoples more or less cultured, between the primitive belief of the race, and the higher, the more abstract, religion which they believe they believe. With races, as with children, the earliest associations are the strongest, and persist through the life of the race as through the life of the individual. The higher power of reasoning which comes with higher development does not disperse them altogether. The people who practise these rites are good Hindus, and, according to the theory of their Hindu religion, the spirit which is emancipated from the body at death at once inhabits another body, for suffering or for enjoyment measured by the deserts of the bodily existence which has just ceased. This is the higher religion. And yet they admit that the spirit is connected with the shadow, not with the breath;—and feel in their hearts that it still lingers in the house and absorbs the essence of the ingredients of the food offered to it; that it must be propitiated or it will cause harm to the living. This is the primitive religion. It is supposed that the spirits of those whose ashes are deposited at Benares or other place of sanctity, and for whose sake alms are given to Bráhmans, remain at those holy spots, and become more and more god like. This is a mixture of both. We are here concerned with facts rather than theories and, as much has been said already of this side of the subject of comparative religions, we may proceed with our facts. The spirits of those who have committed suicide or met death by any violent means are always particularly vicious and troublesome to the Taravád, their spirit possessing and rendering miserable some unfortunate member of it. Unless pacified they will ruin the Taravád, so Bráhman priests are called in and appease them by means of Tilahômam, a rite in which sacrificial fire is raised, and ghee, gingelly and other things are offered through it.

RELIGION.

It will be easier to convey a rational conception of the religion of the Nâyars, not by what is written but by what is left out; so we will proceed on this plan. The ceremonies connected with marriage and death go far towards indicating what are their religious ideas in general. The conservative character of the people of Malabar whose

country is an earthly paradise, severed from the major portion of the Indian peninsula by the high mountains of the Western Ghâts, secure in its happy seclusion, where Nature has lavished her gifts with the prodigality of a Bacchante, prepares us for finding much of the primitive element in their religion. With the more uncultivated, the wilder races, this is almost entirely primitive in character; no more the cult of Siva or Vishnu than of Śāktiktaçult.

As has been remarked already ("Nambūtiris" Bulletin, Vol. III, No. I), we see in Malabar the most undiluted form of the highest, the most abstract religion of Southern India, side by side with the most entirely primitive. The Nāyars have much of both.

The saying, "cleanliness is next to godliness," is one of those which contain much more real wisdom than is usually apprehended. The world is really divided, as I think Mr. Havelock Ellis points out, between the dirty and the clean; and, if I err not, the same author tells us that clothed man cannot be truly clean. Man has advanced far in development when he has become a clean animal. Now the Nāyars' religion is one of cleanliness, undiminished by superabundant clothing. Men and women can scarcely wear less than they do in compatibility with the received ideas of decency and propriety, nor can they be more scrupulous in the matter of personal cleanliness. No Nāyar, unless one utterly degraded by the exigencies of a Government office, would eat his food without having bathed and changed his cloth. It is a rule seldom broken that every Nāyar goes to the temple to pray at least once a day after having bathed; generally twice a day. The mere approach anywhere near his vicinity of a Cheruman, a Polayan, or any inferior being, even a Tīyan, as he walks to his house from the temple, cleansed in body and mind, his marks newly set on his forehead with sandalwood paste, is pollution, and he must turn and bathe again ere he can enter his house and eat. Buchanan tells us that in his time, about 99 years ago, the man of inferior caste thus approaching the Nāyar would be cut down instantly with a sword: there would be no words. Now that the people of India are inconvenienced with an Arms Act which inhibits sword play of this kind, and with a law-system under which high and low are rated alike, the Nāyar has to content himself with an imperious grunt-like shout for the way to be cleared for him as he stalks on unperturbed. His arrogance is not diminished, but he cannot now show it in quite the same way.

Doubtless the natural habit of seclusion common to Malabar, rendered easy by the wealth of vegetation of which those who have never visited shores somewhat alike climatically can have no conception, has favoured the persistence of earlier forms of belief; but, whatever may be the reason for it, there is much more of the extremes of religious belief to be seen amongst the Nâyars than amongst any other people or caste of Southern India.

It has been noticed already how that the Malayalis have, practically, no sects such as obtain throughout the rest of Southern India. Vishnu, Siva, Bhagavati, Râma—all these names of the Hindu theogony are meaningless to them. They do not know one from the other except in name. Their Hinduism is not that of the rest of Southern India.

It is time to come to concrete example, so I will attempt a description of the ceremonial observed at the Pishâri kâvu—the Pishâri temple near Quilandy on the coast 15 miles north of Calicut, where Bhagavati is supposed in vague legend to have slain an Âsura or gigantic ogre, in commemoration of which event the festival is held yearly to Bhagavati and her followers. It is fairly representative. The deity of the temple Bhagavati is spoken of as feminine in the spirit of accuracy, but it is extremely unlikely whether ten per cent. of the crowd even thought of sex in connection with Bhagavati. Sacrifice of goats as part of the ceremonial was at first denied: it is a mystery too awful to be the subject of conversation. At the same time, I am inclined to think that much the weightier reason is that the priests who cling to this part of the ceremonial are ashamed to let it be known to the people that they do it. They like it to be thought that such sacrifice is appropriate to the inferior races, but that *they* are above it and have nothing to do with it!

The festival lasts for seven days. When I visited it in 1895 the last day was on the 31st of March. Before day-break of the first day the ordinary temple priest, a Mûssad, will leave the temple after having swept up and made it clean; and (before day-break also) five Nambûtiris will enter it, bearing with them "Sudhi Kalasam." The Kalasam is on this occasion made of the five products of the cow, *i.e.* (panchagavyam) together with some water, a few leaves of the banyan tree (Arayâl) and Darbha grass, all in one vessel. Before being brought to the temple, mantrams or magic verses will have been said over it. The contents of the

vessel are sprinkled all about the temple, and a little is put in the well, thus purifying the temple and the well. The Nambâtiris will then perform the usual morning worship, and either immediately after it or very soon afterwards they leave the temple, and the Mûssad, the ordinary priest, returns and resumes his office. The temple belongs to four Taravâds, and no sooner has it been purified than the Kâranavans of these four Taravâds, virtually the joint-owners of the temple (known as Urâlas) present to the temple servant (known as a Pishârodi) the silver flag of the temple which has been in the custody of one of them since the last festival. The Pishârodi receives it and hoists it in front of the temple (to the east), thus signifying that the festival has begun. While this is being done, emphasis and grandeur is given to the occasion by the firing off of miniature mortars such as are common at all South Indian festivals; and, after the flag is hoisted, there are hoisted all round the temple small flags of coloured cloth. For the next few days there is nothing particular to be done beyond the procession morning, noon and night; the image of Bhagavati being carried on an elephant to an orchestra of drums, and cannonade of the little mortars. All those who are present are supposed to be fed from the temple. There is a large crowd. On the morning of the fifth day a man of the washerman (he is also a tailor: Vannân) caste will announce to the neighbours by beat of tom-tom that there will be made a procession of Bhagavati issuing from the gates of the temple and passing round about. Like all those who are in any way connected with the temple, this man's office is hereditary and he lives to a small extent on the bounty of the temple, i.e., he holds a little land on nominal terms from the temple property, in consideration for which he must fulfil certain requirements for the temple as on occasions of festivals. His office also invests him with certain rights in the community. The Vannân has, I believe, immense power indirectly, in the matter of giving or not giving new cloths to women after menstruation, but my information on the point is incomplete. Each receives from the temple daily during the festival a fixed quantity of rice, and their families are fed. Thus, the tailor, the goldsmith, and the blacksmith, are under obligation to work as it may be required for the temple without remuneration in the ordinary way of labour, but for the honour only.

In the afternoon of the same day (the fifth) the Vannân and a Manûtan, the one following the other and not together,

bring two umbrellas to the temple ; the Vannân bringing one of cloth, the other one of cadjan. I am not sure whether the cloth umbrella has been in possession of the Vannân, but think it has. At all events, when he now brings it to the temple it is in thorough repair, a condition for which he is responsible. The cadjan umbrella is a new one. Following these two as they walk solemnly, each with his umbrella, is a large crowd. There are the usual processions of Bhagavati on the elephant, encircling the temple thrice in the morning, at noon and at night. Nothing more is done on this day.

Early on the sixth day the headman of the Mukkuvans (fishermen), who by virtue of his headship is called the "Arayân," together with the blacksmith and the goldsmith, comes to the temple followed by an interested crowd, but accompanied by no orchestra of drums. To the Arayân is given half a sack of rice for himself and his followers, a silver umbrella belonging to the temple is handed over to him to be used when he comes to the temple again in the evening. To the blacksmith is given the temple sword. The goldsmith receives the silver umbrella from the Arayân, and executes on it any repairs that may be needful ; and in like manner the blacksmith looks to the sword.

In the afternoon the headman of the Tiyans called the "Tandân," comes to the temple followed by two of his caste-men carrying slung on a pole over their shoulders three bunches of young cocoanuts, an appropriate offering, the Tiyans being those whose ordinary profession is climbing the cocoanut palm, drawing the toddy, securing the cocoanuts, &c. This time there will be loud drumming and a large crowd with the Tandân, and in front of him are men dancng about, imitating sword play with sticks and shields, clanging the shields, pulling at bows as if firing off imaginary arrows, the while shouting and yelling *madly*. The sticks represent swords. Then come the blacksmith and the goldsmith with the sword. The goldsmith has some responsibility connected with the sword, perhaps on account of its ornamentation, although the ordinary Malayali blacksmith is quite equal to the ordinary work of a goldsmith as well as repairing clocks and watches. Following comes the Arayân with the silver umbrella to an accompaniment of very noisy drumming ; he and his umbrella in great state under a canopy of red cloth held lengthways by two men, one

before, one behind. The procession of Bhagavati continues throughout the night, and ceases at day-break. These six days of the festival are called Vilákku.

A word about the drumming. The number of instrumentalists increases as the festival goes on, and on the last day I counted over fifty, all Nâyars. The instruments were the ordinary tom-tom, a skin stretched tight over one side of a circular wooden band, about $1\frac{1}{2}$ feet in diameter and 2 or 3 inches in width, and the common long drum much narrower at the ends than in the middle, and there were (I think) a few of those narrow in the middle, something like an hour-glass cut short at both ends. They are beaten with drum-sticks, curved, not straight, thicker at the end held in the hand. The accuracy with which they were played on, never a wrong stroke, was truly amazing, although the rhythm was being changed perpetually; and their crescendo and diminuendo, from a perfect fury of wildness to the gentlest pianissimo, was equally astonishing, especially when we consider the fact that there was no visible leader of this strange orchestra.

Early on the seventh and last day, when the morning procession is over, there comes to the temple a man of the Pânan * caste. He carries a small cadjan umbrella which he has made himself, adorned all round the edges with a fringe of the young leaves of the cocoanut palm. His approach is heralded and noised just as in the case of the others on the previous day. The umbrella he brings should have a long handle and with this umbrella in his hand he performs a dance before the temple. The Malabar umbrella has a very long handle as a rule, in fact the correct way to carry an umbrella is with the end of the handle resting in the hand while the arm is straight at the side.

The temple which is figured in the plate is situated within a hollow square enclosure, which none in caste below the Nayar is permitted to enter. To the north, south, east, and west, there is a level entrance into this hollow square, and beyond this entrance no man of inferior caste may go. The Pânan receives a certain quantity, about 10 lb. of raw rice for his performance.

* Pânan, a caste numerically small, and inferior. They make umbrellas of cadjan and perform at temples.

In the afternoon a small crowd of Vettuvárs come to the temple carrying with them swords, not very dangerous ones, and about ten small baskets made of cocoanut palm leaves, containing salt.* These baskets are carried slung on a pole as before. These men dance and shout in much excitement, cutting their heads with their own swords in their frenzy. Some of them represent devils or some kind of inferior evil spirits, and dance madly, under the influence of these spirits which they represent. Then comes the Arayán as on the previous day with his little procession, and lastly comes the blacksmith with the sword.

It is explained by the Malayalis that the individuals of the various castes who hold the office of tailor, goldsmith and so on to the temple, do so, not for the sake of what they receive from the temple, but in order to mark their position of superiority in their caste. The ceremonial allotted to each also no doubt marks his position in the ladder of caste.

The procession in the evening of this the seventh and last day is a great affair. Eight elephants which kept line beautifully, took part in this when I witnessed it. One of them very handsomely caparisoned had on its back a priest (Mússad) carrying a sword smothered in garlands of red flowers representing the goddess. Up to this time, when she is represented by a sword, it will be remembered she has been represented by an image. The elephant bearing the priest with the sword is bedizened on the forehead with two golden discs, one on each side of the forehead, and over the centre of the forehead hangs a long golden ornament.† He bears other jewels, and over his back is a large canopy-like red cloth richly wrought. Before the elephant walked a Nayar carrying in his right hand in front of him a sword of the kind called nándakam smeared with white (probably sandalwood) paste. The shape of this sword

* The use of salt here is obscure as to the purpose. I remember a case of a Nayar's house having been plundered, the idol was knocked down and salt was put in the place where it should have stood. The act was looked on as most insulting.

† The discs on the elephant's forehead are common in Malabar in affairs of ceremony. The Mappila poets are very fond of comparing a beautiful girl's breast to these cup-like discs.

is given in the illustration. To its edge, at intervals of a few inches, are fastened tiny bells, so that, when it is shaken, there is a general jingle.



But just before the procession begins there is something for the Tiyaṇs to do. Four men of this caste, having with them Pūkkalāsams (flower-kalāsams) and five having with them Janakalāsams (?) run along the west, north, and east, sides of the temple (outside the enclosure) shouting and making a noise more like the barking of dogs than anything else. The kalāsams contain arrack which is presently given to the temple to be used in the ceremonies.

Members of certain families only are allowed to perform in this business, and for what they do each man receives five edaṅgālis of rice from the temple and a small piece of the flesh of the goat to be sacrificed later. These nine men eat only once a day during the festival; they do no work, remaining quietly at home unless when at the temple; they cannot approach any one of caste lower than their own; they cannot cohabit with women; and they cannot see a woman in menstruation during these days. A crowd of Tiyaṇs join more or less in this, rushing about and barking like dogs, making a hideous noise. They too have kalāsams, and, when they are tired of rushing and barking, they drink the arrack in them. These men are always under vow. In doing what they do, they fulfil their vow for the benefit they have already received from the goddess—cure from sickness as a rule. To the west of the temple is a circular pit—it was called the fire-pit, but there was no fire in it—and this pit all the Tiyaṇ women of the neighbourhood circumambulate, passing from west round by north, three times, holding on the head a pewter plate on which are a little rice, bits of plantain leaves and cocoanut, and a burning wick. As each woman completes her third round, she stands for a moment at the western side, facing east, and throws the contents of the plate into the pit, then goes to the western gate of the enclosure, and puts down

her plate for an instant while she makes profound salaam to the goddess ere going away.

And now the procession starts out from the temple, issuing from the northern gate, and for a moment confronts a being so strange that he demands description. Of the many familiar demons of the Malayâlis the two most intimate are "Kuttichchâttan" and "Gulikan," who are supposed to have assisted Kâli (who is scarcely the Kâli of Brâhmanism by the by) in overcoming the Âsura, and on the occasion of this festival these two demons dance before her. "Gulikan" is represented by the Vannân and "Kuttichchâttan" by the Manûtan who have been mentioned already, and who are under like restrictions with the nine Tiyans. I saw poor "Gulikan" being made up, the operation occupying five or six hours or more before his appearance. I asked who he was and was told he was "a devil." He looked mild enough; but then his "make up" had just begun. He was lying flat on the ground close by the northern entrance of the enclosure, where presently he was to dance, a man painting his face to make it hideous and frightful. This done, his hair was dressed; large bangles were put on his arms, covering them almost completely from the shoulder to the wrist; his head and neck was swathed and decorated; a wooden platform arrangement from which hung a red ornamented skirt was fastened to his hips; there was fastened to his back an elongated Prince of Wales's feathers arrangement (made of plank) the top of which reached five feet above his head; and he was made to look like nothing human. Kuttichchâttan was treated in much the same manner.

As the procession issues from the northern gate of the temple where it is joined by the elephants, Gulikan stands in the northern entrance of the enclosure (which he cannot enter), facing it, and a halt is made for three minutes, while Gulikan dances. The poor old man who represented this fearful being, grotesquely terrible in his wonderful metamorphosis, must have been extremely glad when his three minutes' dance, preparation for which occupied all the afternoon, was concluded, for the mere weight and uncomfortable arrangement of his paraphernalia must have been extremely exhausting. It was with difficulty that he moved at all, let alone dance.

The procession passes round by east, where, at the entrance of the enclosure, Kuttichchâttan gives his dance,

round by south to the westward, and leaving the enclosure proceeds to a certain banyan tree under which is a high raised platform built up with earth and stones. Preceding the procession at a distance of 50 yards are the nine men of the Tiyan caste, mentioned already, carrying kalasams on their heads, and a crowd of women of the same caste, each one carrying a pewter plate—*larger* than the plates used when encircling the fire pit—on which are rice, etc., and the burning wick as before. The plate and its contents on this occasion as well as before is called talapôli. I could not make out that anything in particular is done at the banyan tree, and the procession soon returns to the temple, the nine men and the Tiyan women following, carrying their kalasams and talapôli. On the way, a number of cocks are given in sacrifice by people under a vow. In the procession are a number of “devil dancers” garlanded with white flowers of the pagoda tree mixed with red, jumping, gesticulating, shouting, in an avenue of the crowd in front of the elephant bearing the sword. The person under a vow holds the cock towards one of these “devil dancers” who (never ceasing his gyrations, mad-like gestures and contortions), presently seizes its head, wrings it off, and flings it high in the air. The vows which are fulfilled by this rude decapitation of cocks have been made in order to bring about cure for some ailment.

The procession passes through the temple yard, the enclosure, from west to east, and proceeds half a mile to a banyan tree under which, like the other, there is a high raised platform. When passing by the temple, the Tiyan women empty the contents of their plates in the fire pit as before, and the nine men hand over the arrack in their kalasams to the temple servants. Let us note here as we go along the curious distribution of this rice which is heaped in the fire pit. Two-thirds of it go to the four Tiyans carrying the Pû (flower) kalasams and one-third to the five who carried the Jannakalasams. Returning to the procession, we find it at the raised platform to the east of the temple. On this platform have been placed already an ordinary bamboo quart-like measure of paddy, and one of rice, each covered with a plantain leaf. The principal devil dancer takes a handful of rice and paddy and flings it all around. The procession then visits in turn the gates of the gardens of the four owners of the temple. At each is the measure of rice and the measure of paddy covered with plantain leaves as before, beside them a



A NAYAR HOME, PANUR, N. MALABAR. THE BATHING TANK
AND BATHING SHED IN THE FOREGROUND.

small lamp or burning wick, and the devil dancer throws a handful towards the house. It then finds its way to the tree to the west under which, on the platform, is now a measure of paddy and a lamp; some Brāhmans* repeat mantrams and the elephant the priest on his back and the sword in his hand, all three, are supposed to tremble violently. Up to this time the procession has moved leisurely, a very slow march. Now, starting suddenly, it proceeds at a run to the temple where the priest descends quickly from the elephant and is taken inside the temple by the Mûssad priests. He who has been carrying the sword all this time places it on the sill of the door of the room in which it is kept for worship, and prostrates before it. The sword then shakes itself for 15 minutes! until the chief priest stays its agitation by sprinkling on it some tirtam, fluid made sacred by having been used for anointing the image of the goddess. This done, the chief amongst the devil dancers will with much internal tumult as well as outward convolutions say, in the way of oracle, whether the Dêvi has been pleased with the festival in her honour, or not. As he pronounces this oracular utterance he falls in a sort of swoon, and every soul, excepting only the priests and the temple servants, leaves the place as quickly as possible. The sheds which have been erected for temporary habitation around the temple will be quickly demolished, and search will be made round about to make sure that no one remains near while the mystic rite of sacrifice is about to be done. When the whole place has been cleared, the four owners of the temple, the senior members of the Taravâds who stand in the position of owners and who, by the way, have stayed, hand over each a goat with a rope tied round its neck to the chief priest; and as soon as they have done so they too depart. There will remain now in the temple three Mûssads, one drummer (Marayar) and two temple servants: no others. These Mûssads are commonly called Brāhmans though the Nambûtiris do not admit them to be such. The reason for all this secrecy seems to lie in objection to let it be known generally that any sacrifice is done. I was told again and again that there was no such thing. It is a mystic secret. The Mûssad priests repeat mantrams over the goats for an hour as a preliminary to the sacrifice. Then the chief priest dons a red silk cloth and takes in his hand a chopper-like sword in shape

* East Coast Brahmins (Pattar) I think: perhaps Mûssads.

something like a small bill-hook—while the goats are taken to a certain room within the temple. This room is rather a passage than a room as there are to it but two walls, running north and south. The goats are made to stand in turn in the middle of this room, facing to the south; the chief priest stands to the east of the goat facing west as he cuts off its head with the chopper. He never ceases his mantrams and the goats never flinch,—the effect of the mantrams! Several cocks are then sacrificed in the same place, and over the carcasses of goats and cocks there is sprinkled charcoal powder mixed in water (*karutta gurnai*) and saffron powder and lime water (*ohukanna gurnai*), the flow of mantrams never ceasing the while. The three Mússads only see the sacrifice, a part of the rite supremely secret. Equally so is that which follows. The carcass of one goat will be taken out of the temple by the northern door to the north side of the temple, and from this place one of the temple servants, *who is blindfolded*, drags it three times round the temple, the Mússads following closely repeating their mantrams, the drummer in front beating his drum softly with his fingers. The drummer dare not look behind him and does not know what is being done. After the third round the drummer and the temple servant go away and the three Mússads cook some of the flesh of the goats and one or two of the cocks (or a part of one) with rice. This rice when cooked is taken to the *kávu* (grove), to the north of the temple, and there the Mússads again ply their mantrams. As each mantram is ended a handful of saffron powder is flung on the rice, and all the time the drummer who by this time has returned, the only one present with the priests, keeps up an *obligato pianissimo* with his drum, using his fingers: he faces the north and the priests face the south. Presently, having done with the mantrams, the priests run (*not walk*) once round the temple carrying the cooked rice and scattering it wide as they go, repeating their mantrams. They enter the temple and remain within until day-break. No one can leave the temple until morning comes. Before day-break the temple is thoroughly swept and cleaned, and then the Mússads go out and the five Nambútiris again enter before sunrise and perform the ordinary worship thrice in the day. For this one day only. The next morning the Mússad priests return and resume their duties.

Men and women who have taken part in the festival are considered to have undergone spiritual purification

each in his or her own caste, and to have marked their position in it as well as in the social scale.

Beyond noting that the weirdness of the human tumult busy in its religious effusion is on the last night enhanced by fireworks, mere description of the scene of the festival will not be attempted, and such charming adjuncts of it as the gallery of pretty Nayar women looking on from the garden fence at the seething procession in the lane below must be left to the imagination for the present, while we must be content with such accuracy as we may attain on all points: neither fancy nor beauty shall allure us from the dull path of precision, for the mere features of the ceremonial are one real concern.

It will have been noticed that the Nambûtiris hold aloof from the festival: they purify the temple before and after, but no more.

The importance attached to the various offices of those who are attached to the temple by however slender a thread, was illustrated by a rather amusing squabble between two of the Mukkuvans (fishermen), an uncle and nephew, as to which of them should receive the silver umbrella from the temple and bear it to the house of the goldsmith to be repaired. How the squabble arose, how indeed there could have arisen a squabble on such a point as seniority between an uncle and a nephew amongst Mukkuvans, whose descent is reckoned from father to son, I know not, but during the festival one of them made a rapid journey to the Zamorin (about 50 miles distant), paid some fees and established himself as the senior who had the right to carry the umbrella. There are points of resemblance between this festival and the village festival of Southern India where the buffalo "devoted" to the goddess of the village is sacrificed, where there is the slaughter of the lamb by the strong teeth of a man, the dressing up in leaves, the man naked and blindfolded going round outside the village while cooked rice and blood are scattered wide, the blindfolded man falling senseless before the goddess at the end of it.*

There are many festivals in Malabar description of which would be very interesting, but information in detail is wanting in my notes, so I must perforce rest content with

* Described at length by me in the "Journal of the Anthropological Society of Bombay" some eight years ago.

what has been related of the festival at the Pishâri Kâva which represents one of moderate importance and truly one of the people, and its narration is fairly complete. It seems to express the religion of the Nâyars as it is when not tacked on to that of the Brâhmins: as they formulate it of themselves entirely in their own way.

An important local festival is that held near Palghat, in November, in the little suburb Kalpâti inhabited entirely by Pattar Brâhmins from the east; but it is not a true Malayâli festival and it suffices to mention its existence for it in no way represents the religion of the Nayar. The dragging of cars on which are placed the images of deities, common everywhere from the temple of Jagganath, at Pûri in Orrisa, to Cape Comorin, is quite unknown in Malabar excepting only at Kalpâti which is close to the eastern frontier of Malabar. The Kalpâti festival is the only "car festival" in Malabar.

Near Chowghât (Chavagât), about 30 miles to the southward of Calicut, on the backwater, an arm of the sea and separated from it by a thin strip of land between the rivers, at a place called Guruvayûr, is a very important temple the property of the Zamorin, yielding a very handsome revenue. I visited this festival on one occasion and saw there much which was of interest, but which must find place in the account of regions of others than Nâyars. Here purchase was made of a few offerings such as are made to the temple in satisfaction of vows. A very rude representation of an infant in silver, a hand, a leg, an ulcer, a pair of eyes, and, most curious of all, a silver string which represents a man—the giver. Symbolization of the offering of self is made by a silver string as long as the giver is tall! Goldsmiths working in silver and gold are to be seen just outside the gate of the temple ready to provide at a moment's notice the object any person intends to offer, in case he is not already in possession of his votive offering.

The subject of vows can be touched on but incidentally here.* A vow is made by one desiring offspring, to have

* The subject of vows generally, including description of a Roman Catholic shrine at Cochin somewhat akin to that at Guruvayûr, was treated by me in an article which appeared in the 'Calcutta Review' for January 1899.

his hand or leg cured, to have an ulcer cured, to fulfil any desire whatsoever, and he decides in solemn affirmation to himself (it is not necessary to go to a temple for the purpose of vowing) to give a silver image of a child, a silver leg, and so on, in the event of his having fulfilment of his desire. The offering is never an adjunct of the prayer; it is always something done for benefit received. The thing to be noted is that a vow is *always* fulfilled; fulfilled as well as the vower can possibly fulfil it: it is never forgotten or overlooked.

“When the devil was sick the devil a saint would be

“When the devil was well the devil a saint was he”

is a couplet inapplicable to the Nâyars, or, indeed, to any people in Southern India, where vows, of objects to be given or animals to be sacrificed, are treated always with the utmost sacredness even by people who perhaps in no relation of life behave for an hour with common honesty.

A true Malayali festival is that held at Kottiôr, in North Malabar, in the forest at the foot of the Wynâd hills rising 3,000 to 5,000 feet from the sides of the little glade where it is situated. It is held in July during the height of the monsoon rain. The average rainfall at Kottiôr in July is probably 60 inches at least, so the devotees generally get a good ducking. Though it is a festival for high and low these do not mix at Kottiôr. The Nâyars go first, and after a few days, the Nâyars having done, the Tiyans, and so on. A curious feature of it is that people going to attend it are distinctly rowdy, feeling they have a right to abuse in the vilest and filthiest terms everyone they see on the way—perhaps a few days' march; and not only do they abuse to their hearts' content in their exuberant excitement, but they use personal violence to person and property all along the road. They return like lambs.

I have not been able to ascertain with that definiteness which would enable me to offer more than an opinion, the connection between this violence of language and physical force against innocent people who are met *en route*, and the object of worship at Kottiôr, so will leave that part of the subject alone. The other day I visited the Gammamma, festival at sacred Tirupati in North Arcot, and observed, together with conduct the most truly religious, vows being carried out with the strongest disregard to personal comfort, the use of language truly filthy and obscene

towards the goddess herself! "Gangamma! You have a— (using a filthy word for the vagina) as big as a basket." "She is a whore" said another; and each one in the little crowd of votaries, evidently from the same village, as they approached the shrine, tried to out-do the other in insult and vituperation of the goddess to whom they had come to pay their vows for some good done them by her. Obscenities which need not be described were done—these chiefly by people of very low caste let it be said—by people who felt that neither gesture in the dance nor word could be gross enough to express the violence of their feelings. Yet these people, men and women, rolled, or were rolled, for they soon become unconscious, many times round the temple, their arms stretched towards it, their hair, their clothes (scanty enough) and persons generally thick with the dust. A piteous sight. And there were to be seen men carrying over their heads an ornamented wooden canopy, the whole (and no light weight) held up, fastened to the person by the ends of the supports of the canopy being stuck through the skin of the back and of the chest. Nothing resting on the shoulders or held in the hand. I saw a man who, to fulfil a vow to this goddess who was abused so vilely, had done this every year for over twenty years, and this year handed on performance of the painful vow to his son, a growing lad. The bearers of these canopies danced continuously as if trying to make the points in their flesh as hurtful as possible. So that, together with vituperation of the goddess, there was much veneration, and there is no hesitation in expressing this through bodily discomfort and pain.

Content for the present with this example from another part of the Presidency, we will return now to Kotiôr which I visited in November 1894. One sees a temple of Ísvara, there called Perumâl (or Perumâl Ísvara) by the people; a low thatched building forming a hollow square, in the centre of which was the shrine which, I was not permitted to see. There were some Nambûtiri priests who came out and entered into conversation. Their life far away in the forest must be a lonely one. The refreshment which they offered, butter-milk and sugar, was accepted thankfully. The Nambûtiris, very unsophisticated persons and much wrapped up in their personal sanctity, placed the milk and sugar on the ground, and invited us graciously to partake. A large piece of cocoanut which they threw to my dog was, strange to say, eaten greedily by the beast.

The festival is not held at the temple but in the forest about quarter of a mile distant. This spot is deemed extremely sacred and dreadful. There was, however, no objection to myself and my companions visiting it : we were simply begged not to go. There were with us a Nāyar and a Kurichohan, and the faces of these men, when we proceeded to wade through the little river, knee-deep and about 80 yards wide, in order to reach the sacred spot of the festival, expressed anxious wonder. They dared not accompany us across. No one (excepting, of course, a Muhammadan) would go near the place unless during the few days of the festival when it is safe : at all other times any man going to the place is destroyed instantly. How much this belief has to or with Īswara need not be commented on ! Nothing on earth would have persuaded either the Nāyar or the Kurichchian to cross that river. Orpheus proceeding to find his Eurydice, Danté about to enter the Inferno had not embarked on so fearful a journey ! About a hundred yards beyond the stream we came upon the sacred spot, a little glade in the forest. Why this uncomfortable place was chosen I know not ; in the rains when the festival is held it is usually under water, and the people have to stand in water. In the centre of the glade is a circle of piled up stones, 12 feet in diameter. In the middle of the pile of stones is a rude lingam. By the same token the lingam had been broken and displaced a few days previously by some Māppilas searching for treasure which they thought was there. * Running east from the circle of the lingam is a long shed, in the middle of which is a long raised platform of brick, used apparently as a place for cooking. Around the lingam there were also thatched sheds in which the people had lodged during the festival. Grass and weeds

* The circle of stones is specially interesting. Near the Angadipuram-Manjeri road, between Vellila and the ferry is a monolith in the centre of a piled up platform circled with stones, the circle 30 feet in diameter. Apparently one of the many pre-Hindu remains in Malabar. Description of the ancient remains in Malabar, which are specially interesting, must be made later on. Just now let me note that stone circles are common. And I find in my notes the following : "On the hill side just about the Tirunelli temple (North Wynād forests), where there is a clearing in the forest and the ground is somewhat flat, is a circle of stones 12 feet in diameter, and filled up with earth so as to make a raised platform nearly 2 feet in height ; in the centre a small upright stone 10 inches high. To the north-east, three flat upright stones . . . and a flat place, rudely square about 11 feet from the circle, evidently an old sacred place of some of the jungle folk."

were growing high, and the sheds were dilapidated and looking as if they had not been used for years; but then the rain in Malabar brings about destructive effects with astonishing rapidity.

Pilgrims going to this festival carry with them offerings of some kind. Tiyans take young cocoanuts. I am not sure what the Nâyars take; perhaps the same. Every one who returns brings with him a swish made of split young leaves of the cocoanut palm.

A shrine to which the Malayalis, Nâyars included, resort is that of Subramania in Palni, in the north-west corner of the Madura district, about a week's march from the confines of Malabar near Palghat. Not only are vows paid to this shrine, but men, letting their hair grow for a year after their father's death, proceed to have it cut there. The plate shows an ordinary Palni pilgrim. The arrangement which he is carrying is called a *kāvadi*. There are two kinds of *kāvadi*: a milk *kāvadi* (one containing milk in a pot) and a fish *kāvadi* (one containing fish). The vow may be made in respect of either, each being appropriate to certain circumstances. When the time comes near for the pilgrim to start for Palni he dresses in reddish orange cloths, shoulders his *kāvadi* and starts out. Together with a man ringing a bell, and perhaps one with a tom-tom, with ashes on his face, he assumes the rôle of beggar. The well-to-do are inclined to reduce the beggar period to the minimum; but a beggar every votary must be, and as a beggar he goes to Palni in all humbleness and humiliation, and there he fulfils his vow, leaves his *kāvadi* and his hair and a small sum of money.

Though the individuals about to be noticed were not Nâyars, their cases illustrate very well the religious idea of the Nayar as expressed under certain circumstances; for between the Nâyars and these there is in this respect little if any difference. It was at Guruvayûr in November 1895. On a high raised platform under a peepul tree were a number of people under vows, bound for Palni. A boy of 14 had suffered as a child from epilepsy, and seven years ago his father vowed for him (on his behalf) that if he were cured he would make the pilgrimage to Palni. He wore a string of beads round his neck, and a like string on his right arm (these were in some way connected with the vow). His head was bent and he sat motionless under his *kāvadi*, leaning on the bar, which when he carried it rested on

his shoulder. He could not go to Palni until it was revealed to him in a dream when he was to start. He had waited for this dream seven years, subsisting on roots (yams, &c.) and milk,—no rice. Now he had had the long-looked-for dream, and he was about to start. As an instance of the Malayali's ignorance of the Hindu theogony, this youth said he was going to the god "Sri Krishnan" in Palni. It is well known that god there is *not* Krishna.

Another pilgrim was a man wearing an oval band of silver over the lower portion of the forehead almost covering his eyes; his tongue outside his teeth, kept in position by a silver skewer through it. Had been fasting two years. Much under the influence of the god, and whacking incessantly at a drum in delirious excitement. The skewer was put in the day before, and was to be left in for forty days. Several of the pilgrims wore a handkerchief tied over the mouth, they being under a vow of silence. One poor man wore the regular instrument of silence, the mouth-lock (a wide silver band over the mouth, the ends reaching over the cheeks, a skewer through both cheeks keeping the ends together* and, of course, the mouth open); and he sat patiently in a nice tent-like affair, about 3 feet high. People fed him with milk, &c., but he made no effort to procure food, relying merely on what was given him.

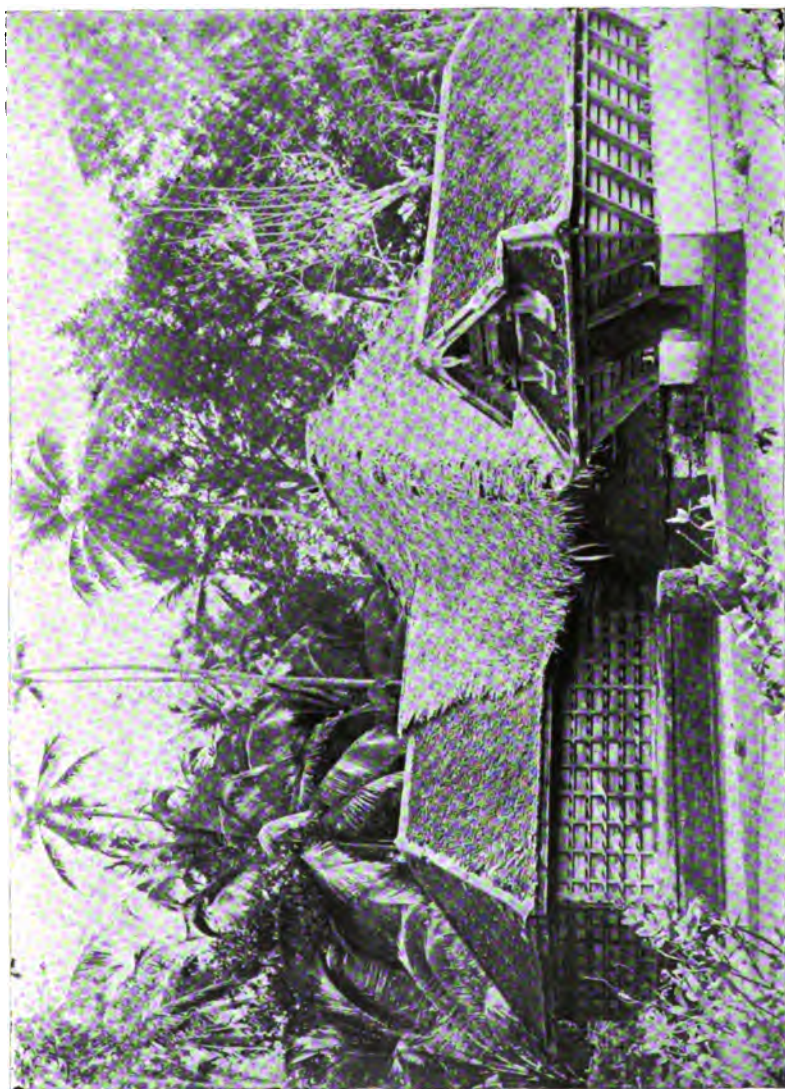
Pilgrims generally go in crowds under charge of a priestly guide, one who, having made a certain number of journeys to the shrine, wears a peculiar sash and other gear. They call themselves *pujâris*, and are quite *au fait* with all the ceremonial prior to the journey as well as with the exigencies of the road. As I stood there, one of these *pujâris* stood up amidst the recumbent crowd. He raised his hands towards the temple a little to the west, then spread out his hands as if invoking a blessing on the people around him. Full of religious fervour he was (apparently at any rate) unconscious of all but the spiritual need of his flock.

The use of the mouth-lock is common with the *Nâyars* when they assume the pilgrims' robes and set out for Palni, and I have often seen many of them garbed and mouth-locked going off on a pilgrimage to that place.

* The mouth-lock is not peculiar to Malabar. A description of this form of vow in another part of the Presidency was made by me in the "Journal of the Anthropological Society of Bombay," Vol. II, No. 2 (1890).

Brief mention must be made of the festival held at Kodungallûr in the northernmost corner of the Cochin State, along the coast, as it possesses some strange features peculiar to Malabar and is much frequented by the Nâyars. Kodungallûr is near Cranganore, the old Dutch Settlement, where was, probably, the Musiris of the Greeks. Tiruvangaikalam, close by, will probably turn out to be the long lost site of the capital of the Chêra kingdom. I have been disappointed in obtaining particulars of the festival, so make the following excerpt from Mr. Logan's well-known "Manual of Malabar." "It takes the people in great crowds from their homes. The whole country near the lines of march rings with the shouts 'Nada-a Nada-a' of the pilgrims to the favourite shrine, chiefly of which is that at Cranganore (Kodungallûr) in the Native State of Cochin. Of what takes place when the pilgrims reach this spot perhaps the less said the better. In their passage up to the shrine the cry of 'Nada-a Nada-a' (march, march away) is varied by terms of unmeasured abuse levelled at the goddess (a Bhagavati) of the shrine. This abusive language is supposed to be acceptable to her. On arrival at the shrine they desecrate it in every conceivable way, believing that this too is acceptable; they throw stones and filth, howling volleys of opprobrium at her house. The chief of the fisherman caste, styled *Kûli Muttatta Arayan*, has the privilege of being the first to begin the work of polluting the Bhoot or shrine. Into other particulars it is unnecessary to enter; cocks are slaughtered and sacrificed. The worshipper gets flowers only, and no holy water after paying his vows. Instead of water he proceeds outside and drinks arrack or toddy, which an attendant Nayar serves out. All castes are free to go, including Tiyars and low caste people. The temple was originally only a Bhoot or holy tree with a platform. The image in the temple is said to have been introduced only of recent years." It is a pity Mr. Logan is so reticent. My information is that the headman of the Mukkuvans (fisher caste) opens the festival by solemnly making a foecal deposit on the image. Here again there is the same strange union of everything that is filthy, abusive, foul and irreverent, with every mode of expressing the deepest religious feeling.

Leaving now the religion, expression of which may be seen at temple festivals and during pilgrimages to these scenes of religious fervour, we will turn to that which we see in the house of the Nayar at home.



AYYAPPAN TEMPLE, NEAR CALICUT.

Plate XII shows a man standing with a sword of the shape known as Nāndakam. He is an individual called a Velichchappād, and as he stood to be photographed by me his forehead and face streamed with blood from a self-inflicted wound on the head. The Velichchappād is a familiar character in Malabar. His profession illustrates the very mixed character of the Hinduism of the Nāyar, partaking as it does of much of the lower cult,—animism, and deification of ancestors, worship of snakes and kites, ceremonies connected therewith, sacrifice, magic, witchcraft and sorcery—together with the purest form of Vêdic Brahmanism known in Southern India, of which there is the highest expression in the temples attached to the wealthy Nambūtiri Illams, to which the Nāyar goes daily to pray, to purify his mind after having purified his body by bathing. There is very little to be seen of prayer in Southern India outside Malabar. The great mass of the people (I exclude the Brāhmans, a very minute percentage of the whole) never dream of going to a temple daily to pray; in fact prayer for its own sake scarcely exists. People go in crowds to a temple on the occasion of a festival to make obeisance to the god, and in a vague way to pray, or they will go to fulfil a vow; but going merely to pray by way of self purification of spirit is certainly rare, for this denotes a phase of religion to which the great mass of the people of Southern India has not reached.

Far away in, as it may be said, rural Malabar, I witnessed the ceremony in which the Velichchappād exhibited his quality. It was in the courtyard of a Nāyar house, to which thronged all the neighbours (Nāyars), men and pretty women, boys and girls. The ceremony lasts about an hour. The Nāyar said it was the custom in his family to have it done once a year, but could give no account of how the custom had originated: most probably in a vow; some ancestor having vowed that if such or such benefit be received, he will for ever after have an annual performance of this ceremony in his house. It involved some expenditure, as the Velichchappād had to be paid, and the neighbours had to be fed. Somewhere about the middle of the little courtyard, always as clean as a dinner table, the Velichchappād placed a lamp (of the Malabar pattern) having a lighted wick, a kalasam, which he had prepared, some flowers, camphor, saffron and other paraphernalia. Bhagavati was the deity invoked, and the

business involved offering flowers, and waving a lighted wick around the kalasam. The Velichchappād's movements became quicker, and suddenly seizing the sword he ran round the courtyard (*against* the sun, as the sailors say) shouting wildly. He is under the influence of the deity who has been induced into him, and he gives oracular utterance to the deity's commands. What he said I know not, and no one else seemed to know or care in the least, much interested though they were in the performance. As he ran, every now and then he cut his forehead with the strange misshapen sword, pressing it against the skin and sawing (vertically) up and down. The blood streamed all over his face. Presently he became wilder and wilder, and whizzed round the lamp, bending forward towards the kalasam. Evidently some deity, some spirit, was present here, and spoke through the mouth of the Velichchappād. This, I think, undoubtedly represents the belief of all who were present. When he had done whizzing round the kalasam, he soon became a normal being and stood before my camera. The fee for this self-inflicted laceration is one rupee and some odds and ends of rice), &c. I saw the Velichchappād about three days afterwards going to perform elsewhere. The wound on his forehead had healed ! The careful observer can always identify a Velichchappād by the triangular-like patch over the forehead where the hair will not grow, and where the skin is somewhat indurated. The Velichchappāds seem to get used to cutting their foreheads as the eels to skinning.

We shall find the oracle again when we come to the lower races. I have seen a fine demonstration of it amongst the Paniyans of Wynād when engaged in a regular corroboree. An extremely interesting example of this combination of this phase of the lower Dravidian cult which is in no way Hindu, with the Brāhmanic religion, is to be seen at Mailār in the Bellary district. There the oracle is bound up with a story about Bishis and Āsuras, an incarnation of Śiva and Pārvatī, and many thousands assemble yearly to hear the oracle delivered by a man on the top of a huge affair representing Śiva's bow, speaking the words of the god.

Before concluding the subject of religion, allusion must be made to the worship of ancestors. Cremation of the dead, as in the case of the Nambūtiris, is done in the garden or compound surrounding the Taravād house, in the south or south-west corner of it ; so the Nāyar has the ashes and spirits of his ancestors with him always. We have seen

already how that pacification of the spirits of those who have passed from view, and who are in the land of the shades, pervade the lives of the living. They are worshipped every new moon day, but especially on the new moon of Karkitakam,* of Tulâm and of Kumbham months. The last is the day following Siva râtri, the well-known Hindu festival. As it was told to me "Food is offered to the ghosts" on these occasions; to all ancestors, male and female. Food of any kind except cooked rice is offered.† It is cooked and placed in the middle room on the west side of the house, where are kept small images in gold or silver of the senior members of the Taravâd (in poorer houses, a stone simply is put to represent the deceased), and the door will be shut for about ten minutes, after which the food will be removed and eaten by the house people. Special worship of ancestors is often made at the temples specially sacred, on the new moons which have been specified, especially on the last. The plate depicts the crowd in the bed of the Ponnâni river on the day following Siva râtri. Men and women bathed and put on clean cloths and, when they had done so put a little burning camphor, sandalwood powder and some other little accessories, on a leaf which was floated down the river after a brief prayer. The scene of the picture adjoins the temple at Tirunavâyi, supposed to be the oldest in Malabar.

SERPENT WORSHIP.

Description, such as is here attempted, of the Nâyar's religion is incomplete so far. There remains to say something of serpent worship and to make some allusion to common superstitions. For description of these I would refer the interested reader to a capital little book entitled "Malabar and its Folk" published by Messrs. Natesan & Co., Madras, by Mr. T. K. Gopal Panniker, B.A., himself a Nâyar as his name denotes. With this gentleman's permission I will reproduce here chapter 12 of his book entitled "Serpent Worship in Malabar":—

"Malabar is a country which preserves to this day primitive institutions of a type peculiarly fascinating to the ethnologist."

* The names of the Malayali months have been given already—see Nambûtiris (Bulletin, Vol. III, No. 2).

† Bread made of rice flour may be offered.

Of the various kinds of primitive worship still practised in the country that of the serpent occupies a prominent place. Here the serpent is deified and offerings of pooja are often made to the reptile. It has got a powerful hold upon the popular imagination. Each household has got its own serpent deity possessing large powers for good as well as for evil. A separate spot is set apart in the house-compound as the abode of these deities. This reserved spot is converted into a small jungle almost circular in shape. It is overgrown with trees of various kinds, and shrubs, and sometimes medicinal plants also. In the middle of this quasi-circular shrine images usually made of lacrite after specified shapes are arranged in certain established methods and a passage is opened to the seat of these images from outside. This spot is so scrupulously reserved, that not even domestic animals are allowed to stray therein. No trees from the place are to be felled down, nor any plant whatever for that matter with any metal or more particularly iron weapons; for these are unholy things, the introduction alone of which inside the sanctified area, not to say the actual cutting down of the tree, is regarded as exceedingly distasteful to these serpent gods. They are not to be desecrated by the touch or even by the approach of a low-caste man. Once in every year at least poojah offerings are made to these gods through the medium of the Numbudri priests.

“Periodical ceremonies called Pambantullel are performed to propitiate them. These are resorted to only on special occasions for the purpose of averting serious visitations from the family. The ceremony is a long complicated process. Any individual drawn from among the Nairs themselves are capable of acting the part of priests on these occasions. A day is fixed for the opening of the ceremony; and a particular plot of ground in the house yard is cleansed and preserved for the performance of the poojahs incidental to the ceremony. Then on the spot certain square figures are drawn, one inside another, and these are tastefully diversified by the interpolation of circular figures and others inside and about them, based on geometrical principles. A peculiar symmetry is observed in the matter of these figures. The figures used in the drawings are usually of various colours, red, white, black and others. Ordinary rice-flour, then again such flour mixed with a combination of chunnam and turmeric powder, thereby making the flour pure red, and burnt paddy husk are chiefly employed. Then a number of other accessories are also required for the ceremony in the shape of lamps, coconuts, eatables of various sorts prepared from paddy and rice and some

other cooked things, such as rice, bread made of rice, and others. These are properly arranged in the place and *poojah* is offered by the priest with the slow recitation of mantrams, and some holy songs or ballads in memory of these gods. Then a number of Nair women, with perfect purity and cleanliness of persons are seated close to each other in a row or two. These women are to preserve sanctity and purity of their persons by a total abstinence from animal food, intoxicants and anything else of an exciting nature for a prescribed period of time; and it is only after the lapse of this period that they become worthy of being admitted to this ceremony. Thus having purged their bodies of all worldliness they are taken into the ceremony and are seated as described before. Now by means of the mantrams and *pooja* the serpent gods are propitiated and in consequence they manifest themselves in the bodies of these female representatives of theirs. The entrance of the gods into their bodies is characterised by a fearful concussion of their whole frame, gradually developing into a ceaseless shaking, particularly the upper parts. A few minutes afterwards, they begin to speak one by one and their speeches are regarded as expressions of the god's will. Sometimes the gods appear in the bodies of all these females and sometimes only in those of a select few or none at all. The refusal of the gods to enter into such persons is symbolical of some want of cleanliness and purity in them; which contingency is looked upon as a source of anxiety to the individual. It may also suggest the displeasure of these gods towards the family in respect of which the ceremony is performed. In either case, such refusal on the part of the gods is an index of their ill-will or dissatisfaction. In cases where the gods refuse to appear in any one of these seated for the purpose, the ceremony is prolonged until the gods are so properly propitiated as to constrain them to manifest themselves. Then after the lapse of the number of days fixed for the ceremony and after the will of the serpent gods is duly expressed the ceremonies close.

"One other small item of offering to these gods consists in certain ballads sung by the Pulluwar females going about from house to house at stated seasons of the year. They take a pretty large pitcher, close its opening by means of a small circular piece of thin leather which is fastened on to the vessel by means of strings strongly tied round its neck. Another string is adjusted to the leather cover which when played on by means of the fingers, produces a hoarse note which is said to please the god's ears, pacify their anger and lull them into sleep. This vessel is carried from house to house in the day time by these Pulluwar females; and placing the vessel in a particular position on the ground,

and sitting in a particular fashion in relation to the vessel, they play on the string which then produces a very pleasing musical note. Then they sing ballads to the accompaniment of these notes. After continuing this for sometime they stop, and getting their customary dues from the family, go their own way. It is believed that these notes and the ballads are peculiarly pleasing to the serpent gods, who bless those for whose sakes the music has been rendered. In consequence of the halo of sanctity that has been popularly thrown round the serpent it is considered a sin of a most heinous nature to kill one of these deified reptiles. The killing of a cobra is regarded with the utmost concern amongst us. In such case the carcass is taken and duly burned with all the necessary solemn ceremonies. Sandalwood is the fuel used sometimes. A small pit is dug which is covered with sandalwood pieces and they are set fire to. When the flame burns intensely the body is quietly placed in it, and reduced to ashes together with, in some cases, incense and myrrh. This is believed to mitigate the dangers consequent on the death of the serpent.

"The popular conception of the family cobra is that it is a tiny little thing with a full developed hood, and fangs, and possessing a golden tinge, which shine brilliantly in the rays of the sun. At the sight of human beings it gets away to its holy shrine exhibiting a reeling motion on its way thither. It never gets far away from its abode of which it is the perennial guardian.

"One striking phase of serpent worship in Malabar relates to the family of Pappanmakkat Nambudris and the singular and effective control they exercise over serpents in general. Their powers are handed from father to son. It is said that this Nambudri household is full of cobras which find their abode in every nook and corner of it. The inmates can scarcely move about without placing their feet upon any one of these serpents. Owing to the magic influence of the family the serpents cannot and will not injure them. The serpents are said to be always at the beck and call of the members of this Nambudri family and render unquestioned obedience to their commands. They watch and protect the interests of the family in the most jealous spirit. In short, these reptiles live, move, and have their being as freely as if they were domesticated animals imbued with supernatural powers.

"Cases of cobra-poison are generally taken to this Brahman family and the headman sometimes summons before him the identical animal which caused injury and it is said successfully effects a cure as if by some mystic and magic influence.

"The serpent also plays a conspicuous part in contracts between citizens. The family serpent is in old deeds the subject-matter of sale. The sale of a house compound extends also to the family serpent. The stipulation in these documents invariably is that the family serpents are sold along with the properties; and even in cases of division of family property amongst its several branches of members, the family-serpent is included in the division. Such is the sacred prominence which has been given to the serpent amongst us. Their anger is said to manifest itself in some member of the family being struck down with leprosy or some other loathsome disease; while by their propitiation they can be converted into the guardian angels of our households, powerful enough to preserve the prosperity of the inmates as well as to vouchsafe their complete immunity from the attacks of virulent diseases and sometimes even from death."

As the subject of serpent-worship is one of fascinating interest, I will add to the preceding extract, which is as interesting as it is accurate, an excerpt from the "Report of the Census of Travancore" for 1891 (the Malayalam year 1066), a book which is perhaps not accessible to many. The shrine which is described therein is in the neighbouring Native State of Travancore, but it is equally representative of one in Malabar:—

"A serpent-kavoo in Travancore. Many places of Hindu worship exist in Travancore under groves locally known as kavooos. There are thousands of these in the country. Lieutenants Ward and Conner estimated their number at 15,000 seventy years ago. This number has, I think, increased since then. These kavooos are all dedicated to minor divinities such as Nāgathans, Nāgarajas, Yeksha, Gandharvas, and Sāstas. Some are of great age and repute and own enormous properties for their maintenance. One of these a well-known sarpa-kavoo in a village 70 miles north of Travancore will be here described. Mythological origin for these sarpa-kavooos is thus stated in the Kēraḷōpatti. When Parasurāma's first colonists found Kēraḷa uninhabitable and unimprovable, they abandoned it and returned to their old country. During the time of their absence the Nāgas (serpents) of the lower world called in popular language Nāgalōkam or Pātāla, took possession of the newly-reclaimed land and settled there. The colonists returning found that the serpents had usurped their lands, upon which a fight ensued, and Parasurāma arbitrated between his colonists and the Nāgas, with the result that these latter were to be given a corner of every occupied

compound. Thus arose the sarpa-kavoo of Malabar which, as I have already described in a previous chapter, is generally at the south-west corner of every Tarvard garden. And Parasurāma further ordained that the places allotted to the Nāgas were to be left untouched by the knife or the spade, thus enabling the underwood trees and creepers to grow luxuriantly therein. It is to such places that the name of kavoo (or grove) is given. In the kavoo are generally planted several idols of serpents on a stone basement called chittrakoodam, and sometimes a low wall is thrown round to prevent cattle or children trespassing into that space. The propitiation of the serpents is deemed essential for the well-being and prosperity of the householder. Offerings of noorum palum (dough and milk) of cooked rice, lights and songs are made periodically to the serpent gods in the kavoo. The one I am describing here is one of the most important in Travancore. This is known as Mannarsala. Once upon a time, so says tradition, a male member of this Illam married a girl of the Vettikkōttu Illam, where the serpents were held in great veneration. The girl's parents being poor could give her nothing in the way of dowry. They, therefore, gave her one of the stone idols of the serpent, of which there were many in their house. This stone idol the girl was counselled to take care of and regularly worship; subsequently it is said the girl became a mother and brought forth a boy and a snake, whereupon the snake-child was located in the underground cellar of the house and brought up. The Illam prospered from that day. The woman and the snake are believed to be the cause of the affluence of the family, and to this day to the surname of the male members of that Illom are added, by way of distinction, the names of the serpent god and that of the female. Thus my informant, the present head of the family, is called Vasaki Sridēvi Krishnan Nambyadi. To this gentleman I am indebted for the following further details on the snake-worship at Mannarsala:—He says the name Mannarsala means the 'unburnt ground.' This refers to an ancient tradition that when the great Khandava-vanam was burnt by Agni, the god of fire, this small oasis was spared on the prayer of the serpents, who were the progeny of the serpent offspring of the lady of this Illam. As the Illam could not well accommodate the large number of the serpents that had multiplied, they were removed to a spot on the south of the house, where a magnificent grove has since been grown. In this spot are stone idols put up

for the king and queen of snakes, known as Nágarája and Nágayekshi, and for various members of the family which, according to my informant, number about 3,000. There are as many stone images in this grove now. In the cellar of the house, as well as in the grove where the stone images are placed, a solution of noorum palum is offered once a year, that is, on the day following the Sivarátri in the month of Mási. The same kind of offering is made to the Chittrakoodom also. About 12½ Edangalies of dough and milk are mixed together and kept in the cellar. Thereafter the door of the cellar is shut for three days, and lest anybody pry into what passes within the cellar, the women of the household cover the crevices and holes of the door by the big cadjan umbrellas of the female inmates of the Illam. On the third day the door is opened, and whatever remains in the vessel of the dough and milk placed there is thrown into a tank as unfit for human use. The mixing up of noorum palum and the performing of the poojahs are done by the eldest female member of the Illam. The noorum palum is made of rice-flour, saffron powder, cow's milk, water of the tender cocoanut, fruit of the Kadali plantain, and ghee. In the Nálukettu of the house, offerings of noorum palum and cooked rice, as well as kuruthi (a red liquid composed of flour, saffron and chunam), take place every Ayilyam (star) day. Every morning the king and queen of serpents are washed, and an offering of fruit and milk is made to them; in the noon offerings of Vellani-védyam (cooked rice) and afterwards of fried grain (malar) follow. During the month of Kartika, a special poojah called navakom and offering of noorum palum are daily observed. On the Sivarátri day, in the month of Mási, the customary five poojahs and navakom are performed, and in the evening of the same day sacrificial offerings to the serpents and kuruti, as stated above, are made, and at the conclusion of the day's poojahs the idols are taken in procession round the temple. On Ayilyam (star) days, in the months of Purattási and Alpasi, all the serpent idols in the grove and the temples therein are taken in procession to the Illam, and offerings of noorum palum, kuruti and cooked rice are made there in propitiation of the serpent gods. The person who carries the idol of the Nágarája is the eldest female member of the Illam, and the procession is conducted with great pomp and rejoicings. According to my informant, the eldest female member of the house, though married, is expected to lead a celibate life when she

becomes the oldest female in the family. During the festive days at Mannarsála, about 5,000 people assemble to worship and propitiate the serpent gods, and their offerings include gold and silver coins, and gold, silver, copper or stone effigies of snakes, grains of all kinds, pepper, salt, saffron, tender cocoanuts, bunches of Kadali plantain, melons, oil, ghee, sandalwood, silk and other pilgrims. On the day previous to the Ayilyam ceremonial, about two or three thousand Brahmans are fed. The annual expense of this institution and worship at Mannarsála is estimated at about 2,000 rupees. The kávu has its own paddy fields and gardens, from the revenues of which it is maintained. All the land about it, measuring a mile square, is said to belong to it. This would be enormous property, as the taluk where this kavoo is situated is one of the richest in Travancore. A trifle is given by the Sircar every year. If more funds are required, the Nambiyadi is expected to meet them from his own private income. The grove and its temples cover an immense oblong space measuring about 16 acres in extent. The inmates of the Illam are the poojaries of the gods in this grove. It is believed that whenever the poojah is not performed with the strictest personal purity or care to small details, the serpent gods get offended, which feeling is exhibited by the largest cobras coming out of the grove. It should be remembered that, as a rule, the serpents are not seen out of their holes, though hundreds of them are known to exist in these large groves. When any is seen, especially if a real cobra, the village astrologer is consulted, who readily finds out the cause of the wrath of the serpent gods, and steps are taken immediately to pacify them by propitiatory ceremonies. The people believe in these ceremonies most implicitly. That is not a mere form with them. In a house in North Travancore, where I lived some years, there used to be seen now and again snakes of all kinds, and in answer to my request to the servant of my landlord to keep the kavoo neat, he invariably said, "Please, sir, order some lights and milk to the kávu," for this man most sincerely believed that this was the only effective way of keeping out the snakes from view. He did not seem to believe that there was any good in keeping the premises neat and clean. It should here be noted that a true Hindu population never pelt at or harm the snakes when they are seen. They are objects of worship. One of our retired officials told me that some years ago, when he was young and new to the place, he was puzzled by some

of the parties present at his outcherry telling him that the 'god was coming.' The crowd made way, and on rising, this official was horrified to see that the god referred to was a live cobra. This village he spoke of, even now abounds with serpents, but strange to say, these reptiles seldom harm man. They are evidently become domesticated animals, for we seldom hear of snake-bites in that village, though the general belief is that there are more snakes there than rats. The people also seem to be quite at home with them, for they do not get put out when they see these reptiles."

CUSTOMS, GAMES, FESTIVALS, ETC.

Hamilton in his "New Account of the East Indies" published in 1744, writes:—

"It was an ancient custom for the Samorin (Zamorin, then the local potentate) to reign but twelve years and no longer. If he died before his term was expired it saved him a troublesome ceremony of cutting his own throat on a public scaffold erected for that purpose. He first made a feast for all his nobility and gentry, who were very numerous. After the feast, he saluted his guests, went on the scaffold, and very neatly cut his own throat in the view of the assembly. His body was, a little while after, burned with great pomp and ceremony, and the grandees elected a new Samorin. Whether that custom was a religious or a civil ceremony I know not, but it is now laid aside, and a new custom is followed by the modern Samorin, that a jubilee is proclaimed throughout his dominion, at the end of twelve years, and a tent is pitched for him in a spacious plain, and a great feast is celebrated for ten or twelve days with mirth and jollity, guns firing night and day, so at the end of the feast any four of the guests that have a mind to gain a crown by a desperate action in fighting their way through 30, or 40,000 of his guards, and kill the Samorin in his tent, he that kills him succeeds to him in his empire. In Anno 1695 one of these jubilees happened and the tent pitched near Ponnany (Ponāni) a seaport of his about 15 leagues to the southward of Calicut. There were but three men that would venture on that desperate action, who fell on, with sword and target, among the guards, and after they had killed and wounded many were themselves killed. One of the *Desperadoes* had a nephew of fifteen or sixteen years of age, that kept close by his uncle in the attack on the guards, and when he saw him fall, the youth got through the guards into the tent and made a stroke at his majesty's head and had certainly dispatched him, if a large brass lamp which was burning over his head, had not marred the blow; but before he could make another, he was killed by the guards; and I

believe the same Samorin reigns yet. I chanced to come that time along the coast and heard the guns for two or three days and nights successively."

Here must be made an excerpt from the "Malabar Manual" as its author Mr. Logan, while Collector (chief administrative officer) of Malabar, made excellent use of his opportunities to delve into the ancient archives of the district.

"The *Kerala Māhātmya* so far corroborates Hamilton's story, that it declares the king used to be deposed at this festival, but there is no mention of self-immolation, although it is quite possible the deposed kings may have occasionally adopted this mode of escape from the chagrin of not being re-elected by their adherents." He goes on to say what Mr. Jonathan Duncan wrote about this festival, of which his account appears in the first volume of the transactions of the Bombay Literary Society.

The festival was held last in 1743.

"Those who acknowledged the zamorin's suzerainty sent flags in token of fealty; and the places where these flags used to be hoisted at festival times are still pointed out. The Valluvanād Raja, who is still represented in the management of the Tirunāvāyi temple by one of the four Brahman *Kārālars*, instead of sending a flag used to send men called *Chāvers* (men who have elected to die), whose office it was to endeavour to cut their way through the zamorin's guards to his throne in a manner presently to be described. If they had succeeded in killing him—as on the occasion cited by Hamilton, whose statement except as to date, is moreover corroborated by tradition—it is uncertain what would have happened; but probably if a capable Raja had been ruling in Valluvanād at such a time, popular opinion would have endowed him with suzerainty, for the Nāyar Militia were very fickle, and flocked to the standard of the man who was fittest to command and who treated them the most considerately.

"With the kind assistance of the present Zamorin, Maharaja Bhahadur, the records of his family have been examined and a complete account obtained of the events attending the festival held in 1683 A.D., the festival next preceding that alluded to by Hamilton.

"The festival used to continue for twenty-eight days every twelfth year when the planet jupiter was in retrograde motion in the sign of *karkadagam* or cancer or the crab, and at the time of the eighth lunar asterism in the month of Makaram the festival used to culminate.

"On the occasion in question the Zamorin some months beforehand sent orders for the preparation of the necessary

timber and bamboos for the temporary buildings required at *Tirunāvāyi* and the materials were floated down stream from the Aliparamba Chirakkal lands.

"Then exactly two months before the opening day he sent out a circular to his followers worded as follows:—

"Royal writing to the *Akampati Janam* (body-guards).

"On the 5th Makaram 858 is *Mahāmakha Talpāyam* (time of the eighth lunar asterism in the festival season), and the *Lōkars* (chief people of each locality) are required to attend at *Tirunāvāyi* as in olden times.

"Mangātt Kaman and Tinayanchēri are sent to collect and bring you in regular order for the *Mahāmakham*."

"The Zamorin timed himself to arrive at *Tirunāvāyi* on the day after that appointed for the arrival of his followers, and the lucky moment for the setting out on this particular occasion on the last day's stage of the journey was at the rising of the constellation of Aquarius."

"The *Tirunāvāyi* temple stands on the north bank of the Ponnāi river close to the present line of railway. Passengers by train can catch a glimpse of it by looking across the level expanse of paddy-fields which lie south of the sixth telegraph post on the three-hundred and eighty-second mile of the railway. There is a modest clump of trees on the river bank hiding the temple, the western gateway of which faces a perfectly straight piece of road a little over half a mile in length stretching from the temple gateway westwards to the elevated ridge hemming in the paddy-fields on the west. This road is but little raised above the level of the paddy flat. Directly facing this straight piece of road as the elevated ridge is reached there are three or perhaps four terraces, the outlines of which may still be traced in the face of the precipitous bank.

"A little to one side of the upper terrace are the ruins of a strongly built powder magazine, and on the flat ground above and on both sides of the five avenue shading the public road at this place is ample space for the erection of temporary houses.

"In a neighbouring enclosure under cultivation is a disused well of fine proportions and of most solid construction.

"From the upper terrace alluded to a commanding view is obtained facing eastwards of the level rice-plain at foot, of the broad placed river on the right backed by low hills, of higher flat-topped laterite plateaus on the left their lower slopes bosomed in trees, and, in the far distance, of the great chain of Western Ghāts with the Nilgiris in the extreme left front hardly distinguishable in their proverbial color from the sky above them. It was on this spot, on a smooth plateau of hard laterite rock, raised some 30 to 40 feet above the plain, that the Zamorin used several times in the course of the festival to take his stand with the sword of *Uṣṣamān Perumāi*, the last Emperor, in his hand.

"The sword is and has been for centuries, slowly rusting away in its scabbard, but it is not alone on it that the Zamorin depends for his safety, for the plain below him is covered with the 30,000 Nâyars of Ernâd, the 10,000 of Pôlanâd and numberless petty dependent chieftains, each counting his fighting men by the hundred or the thousand or by thousands. Away on the right across the river are the camps of the second prince of the Zamorin's family and of the dependent Punnattûr Raja; the third, fourth, fifth, and sixth princes' camps too are close at hand in the left front behind the temple, and behind the terrace itself is the Zamorin's camp.

"The whole scene is being made gay with flags as an elephant is being formally caparisoned with a chain of solid gold with "one hundred and fourteen small links and one clasp, making in all one hundred and fifteen"—as the record specifically testifies—and with golden bosses and other ornaments too numerous to be detailed. But this part of the ceremonies is not to be permitted to pass unchallenged, for it signifies in a formal manner the Zamorin's intention to assume the rôle of *Raksha-purashan* or protector of the festivities and of the people there assembled. On the instant, therefore, there is a stir among the crowd assembled near the western gate of the temple directly facing at half a mile distance the Zamorin's standing-place on the upper terrace.

"From this post, running due east in a perfectly straight line to the western gate of the temple, is the straight piece of road already described, but the road itself is clear and the armed crowd on the plain, it is seen, are hemmed in by barrel palisading running the full length of the road on both sides. Two spears' length apart the palisades are placed, and the armed crowd on either hand, consisting on this occasion of the thirty thousand Ernâd Nâyars, it is seen, are all carrying spears. The spearmen may not enter that narrow lane, and by the mere weight of their bodies present an impossible obstacle to the free passage of the foemen now bent on cutting down the Zamorin in his pride of place.

"Amid much din and firing of guns the *Morituri*, the *Châvor* Nâyars, the elect of four Nayar houses in Valluvanâd, step forth from the crowd and receive the last blessings and farewells of their friends and relatives. They have just taken of the last meal they are to eat on earth at the house of the temple representative of their chieftain; they are decked with garlands and smeared with ashes. On this particular occasion it is one of the houses of Putumanna Panikkar who heads the fray. He is joined by seventeen of his friends—Nayar or Mâppilla or other arms bearing caste men—for all who so wish may fall in with sword and target in support of the men who have elected to die.

"Armed with swords and targets alone they rush at the spearmen thronging the palisades; they 'wind and turn their

bodies, as if they had no bones, casting them forward and backward, high and low, even to the astonishment of the beholders, as worthy Master Johnson describes them in a passage already quoted (page 137). But notwithstanding the suppleness of their limbs, notwithstanding their delight and skill and dexterity in their weapons, the result is inevitable and is prosaically recorded in the chronicle thus: 'The number of *Chāvers* who came and died early morning the next day after the elephant began to be adorned with gold trappings—being *Putumanna Kanūr Mēnon* and followers—were 18.

"At various times during the ten last days of the festival the same thing is repeated. Whenever the Zamorin takes his stand on the terrace, assumes the sword and shakes it, men rush forth from the crowd at the west temple gate only to be impaled on the spears of the guardsmen who relieve each other from day to day. The turns for this duty are specifically mentioned in the chronicle thus: 'on the day the golden ornaments are begun to be used the body-guard consists of the thirty thousand; of Ellaya Vakkayil Vellōdi (and his men) the second day, of Netiyiruppu,* *Mūttarāti Tirumulpād* (and his men the third day of *Ittatūrṇād*,† *Nambiyātiri Tirumulpād* (and his men) the fourth day, of *Ērnād Mūnāmkūr*,‡ *Nambiyātiri Tirumulpād* (and his men) the fifth day, of *Ērnād*,§ *Elankur Nambiyātiri Tirumalpād* (and his men) the sixth day, and of the ten thousand,|| the *Calicut Talachanna Nāyar* and *Ērnād Mēnon* the seventh day.'

"The chronicle is silent as to the turns for this duty on the eighth, ninth and tenth days. On the eleventh day, before the assembly broke up and after the final assault of the *Chāvers* had been delivered, the *Ērnād Elankūr Nambiyātiri Tirumalpād* (the Zamorin next in succession) and the *Tirumanissēri Nambūtiri* were conveyed in palanquins to the eastern end of the narrow palisaded lane, and thence they advanced on foot, prostrating themselves four times towards the Zamorin, once at the eastern end of the lane, twice in the middle, and once at the foot of the terraces. And after due permission was obtained they took their places on the Zamorin's right hand.

"After this, so the chronicle runs, it was the duty of the men who have formed the body-guard to march up with music and pomp to make obeisance. On this occasion, however, a large portion of the body-guard seems to have been displeased, for they left without fulfilling this duty, and this story corroborates

* The fifth Prince of the Zamorin's family.

† The fourth Prince of the Zamorin's family.

‡ The third Prince of the Zamorin's family.

§ The second Prince and heir apparent of the Zamorin's family.

|| The ten thousand of *Pōlanād*, the district round about *Calicut*, formed the Zamorin's own immediate body-guard—Conf. the account contained in the *Kēralopatti* of how these men were originally selected—Chapter III, section (a).

in a marked way the facts already set forth (page 132) regarding the independence and important political influence possessed by the Nâyars as a body.

"The *Ērnād Menon* and the *Calicut Talachanna Nāyar* with their followers were the only chiefs who made obeisance in due form to the Zamorin on this occasion, and possibly by the time of the next festival (1695 A.D.), of which Hamilton wrote, the dissatisfaction might have increased among his followers and the Zamorin's life even may have been endangered, as Hamilton alleges, probably through lack of men to guard him. Tradition asserts that the *Chāver* who managed on one occasion to get through the guards and up to the Zamorin's seat belonged to the family of the *Chādrattil Panikkar*.

"The chronicle winds up with a list of the *Chāvers* slain on this occasion, viz. :—

When the Zamorin was taking his stand on the terrace apparently at the commencement of festivities	5
On the day the elephant was adorned as already stated	18
"The next day of <i>Chādrattil Panikkar</i> and followers, the number who came and died.	11
"Of <i>Kirkōt Panikkar</i> and followers the number that came and died the third day.	12
The number that came to Vakkayūr and died in the fourth day	4
"The number of <i>Chāvers</i> that were arrested at the place where Kalattal Itti Karunākara Menon was, and brought tied to Vakkayūr and put to death	1
"The number of <i>Chāvers</i> arrested on the day of the sacrifice, when all the men together made the obeisance below Vakkayūr at the time when the Zamorin was taking his stand, and left tied to the bars, and who were afterwards brought to Vakkayūr and after the ceremony was over and the Zamorin had returned to the palace were put to the sword	4
Total	55

"The chronicle does not mention the fact, but a current tradition states that the corpses of the slain were customarily kicked by elephants as far as the brink of the fine well, of which mention has been made, and into which they were tumbled promiscuously. The well itself is nearly filled up with debris of sorts, and a search made at the spot would probably elicit conclusive evidence of the truth of this tradition.

"The martial spirit of the Nâyars in former days was kept alive by such desperate enterprises as the above, but in everyday-life the Nâyars used to be prepared and ready to take vengeance on any who affronted him, for he invariably carried weapons, and when a man was slain it was incumbent on his family to compass the death of a member of the slayer's family. This custom was called *kulippaka* (literally *house feud*), or in an abbreviated form *kuduppa*. One curious fact connected with this custom was that the chieftain of the district intervened when a man was slain, and the body of the deceased was by him taken to his enemy's house, and the corpse and the house were burnt together. It is understood that an out-house was usually selected for this purpose, but it was common phrase to say—

"the slain rests in the yard of the slayer."

"Again when mortal offence was given by one man to another, a solemn contract used to be entered into before the chieftain of the locality to fight a *duel*, the chieftain himself being the umpire. Large sums (up to a thousand fanams or two hundred and fifty rupees) used to be deposited as the battle-wager, and these sums formed one source (*ankam*) of the chieftain's revenue, and the right to levy them was sometimes transferred along with other privileges appertaining to the tenure of the soil. A preparation and training (it is said) for twelve years preceded the battle in order to qualify the combatants in the use of their weapons. The men who fought were not necessarily the principals in the quarrel—they were generally their champions. It was essential that one should fall, and so both men settled all their worldly affair before the day of combat."

The origin of the duo-decimal period is obscure, but to this day it obtains in Malabar (and in Malabar only) in relation to all agricultural affairs. The land, in contradistinction to the rest of the Presidency (as a rule), is the absolute property of the landholders—the whole of Malabar is; the landholders let out their land under certain conditions for periods of twelve years. This is the ordinary period of tenure; now-a-days, much of the land is leased informally on a yearly tenure. Tenants must renew their right to possession of their land every twelve years. The subject of land tenure in Malabar is a very extensive one, and we will not discuss it, resting satisfied with having noted the observance of the twelve yearly cycle in connection with it. It is supposed to be governed by the cycle of Jupiter.*

* Friar Jordanus, Bishop of Quilon in the 14th century, said that people make a vow, and to fulfil it cut off their own head before an idol. "Barbosa says that the king of Quilaene or Coliacaud (Calicut). . . . after reigning 12 years, always sacrificed himself to an idol in this way."—"Madras Manual of Administration," vol. iii, page 648.

The month Karkkatakam, when the Malayalis say "the body is cool," is the time when, according to custom, the Nāyar youths practise physical exercises. At Payōli in North Malabar, when I was there in August 1895, the local instructor of athletics was a Paravan, a mason by caste. As he had the adjunct 'Kurup' to his name it took some-time to discover the fact. Teachers of his ilk are invariably of the Paravan caste, and when they are believed to be properly accomplished they are given the honorific 'Kurup.' So carefully are things regulated that no other person was permitted to teach athletics within the amshom (a local area, a small county): and his women folk had privileges, they only being the midwives who could attend on the Nāyar women of the amshom. His fee for a course of exercises for the month was ten rupees. He and some of his pupils gave an exhibition of their quality.

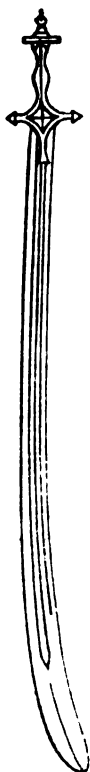


Besides bodily contortions and somersaults (practised in a long low-roofed shed having a sandy floor) there is play with the following instruments:—"Watta" (as in the illustration) "cheruvadi," a short stick, and a stick like a quarter staff called a sariravadi—"stick the length of one's body." The watta is held in the right hand as a dagger; it is used to stab or strike and, in some ingenious way turn over an opponent. The total length of the watta is two feet, and of the cheruvadi about three feet. The latter is squared at the ends and is but a short staff.

It is held in the right hand a few inches from the end, and is used for striking and guarding only. The sariravadi is held at or near one end by one or by both hands; the distance between the hands is altered constantly, and so is the end of the stick, which is grasped now by one now by another end by either hand as occasion may require; sometimes it is grasped in the middle. The performance with these simple things was astonishing. I should say the watta and the cheruvadi represented swords, or rather that they were used for initiation or practice in swordmanship when the Nāyars were the military element in Malabar. The opponents who faced each other with the sariravadi or quarter staff, stood 30 feet apart, and, as if under the same stimulus, each kicked one leg high in the air, à la cancan,

gave several lively bounds in the air, held their staff horizontally in front with outstretched arms, came down *slowly* on the haunches, placed the staff on the ground, bent over and touched it with the forehead. With a sudden bound they were again on their feet, and after some preliminary pirouetting went for each other tooth and nail.

The sword play which one sees during festive ceremonies, a marriage or the like, done by the hereditary retainers who fight imaginary foes and destroy and vanquish opponents with much contortion of body, always indulge in much of this preliminary overture to their performance. There is always, by way of preliminary, a high kick in the air, followed by squatting on the haunches, bounding high, turning, twisting, pirouetting, and all the time swinging the sword unceasingly above, below, behind the back, under the arm or legs—in ever so many impossible ways.



Nayar swords and shields are figured in the illustration. The shields are made of wood covered with leather, usually coloured bright red. Within the boss are some hard seeds, or metal balls loose in a small space, so that there is a jingling sound like that of the small bells on the ankles of the dancer, when the shield is oscillated or shaken in the hand. The swords are those which were used ordinarily for fighting. There are also swords of many patterns for processional and other purposes, more or less ornamented about the handle and half way up the blade; but the one which is figured will suffice to show what the Nayar fighting sword was like. The smaller shields are now used in play.

THE ÔNAM FESTIVAL.

The popular festival of Malabar is the Ônam, occurring in the last days of August or early in September. It is the great occasion for general rejoicing, when every one gives and receives presents, when the children are to be seen roaming

everywhere gathering flowers, to make the flower-carpet which are a distinctive feature of this happy season. For the Ōnam is not merely a one-day festival. It lasts three days at least, and the ten days preceding it are occupied in preparations and in games—Ōnam games. A writer, (a Malayali evidently), in the "Calcutta Review" for January 1899, thus describes the Ōnam season:—

"There are a great many of these Ōnam ballads; but most of them are of a piece with the specimen given. It is a delight to hear them chanted in the early morning hours by bands of light-hearted children with clear bell-like voices;—

Chembil house maiden, little maiden,

What did he give you who yesterday came?

A new dress he gave me, a small dress he gave me,

A lounge likewise on which to recline,

A tank to disport in, a well to draw water from, a compound
To gambol in, a big field to sing in.

Freshen up flowers, oh freshen for me.

On the south and the north shore, in the compound of
Kannan, there grew up and flourished a thumba flower
plant.

Out of this plant were fifty boats gotten; at the head of each
boat a banyan tree grew.

From the banyan there grew a tiny little babe, and a drum
and a stick for the baby to play with.

The drum and the drum-stick, the household domestic, all
together they flew away and they vanished.

Freshen up, flowers, oh freshen for me.

A measure and a half measure, and elephant's chains and
earrings, who goes under the flower tree beneath which the
elephant passes?

It is no one at all, it is no one at all; it is the Kuttikatt
baby-god; when we went forth to pluck of ripe fruit, a
mischievous urchin sprang up and bit us.

With bitten foot when we went to the Brahmin's, the
Brahmin lady, we found, had been injured.

With bitten foot then we went to the house of Edathil, whose
lady with fever lay stricken.

Freshen up, flowers, oh freshen for me.

At noon of Attam day a bamboo fresh sprouted, and there-
with we made us a good fish trap.

And when to the tank a fishing we went, we baited a
minnow.

By its tail did we hold it, on the bund did we dash it, and of
cocoanuts, with milk full, eighteen we ground.

With elephant pepper we dressed it; with asafoetida we
filled it, right up to the elephant's head.

Freshen up, flowers, oh freshen for me.

Having set out at dawn to gather blossoms, the little children return with their beautiful spoils by 9. or 10 A.M.; and then the daily decorations begin. The chief decoration consists of a carpet made out of the gathered blossoms, the smaller ones being used in their entirety, while the large flowers and one or two varieties of foliage of differing tints are pinched up into little pieces to serve the decorator's purpose. This flower carpet is invariably made in the centre of the clean strip of yard in front of the neat house. Often it is a beautiful work of art accomplished with a delicate touch and a highly artistic sense of tone and blending. Among the flowers that contribute to the exquisite design may be named the common red, as well as the rarer variegated, *lantana*, the large red shoe flower (*Hibiscus rosa sinensis*) an indispensable feature of the cultivated vegetation in a Malayali's homestead, the yellow marigold, the yellow aster, the scarlet button flower, the sacred *tulsi* (*Ocimum sanctum*), the wee, modest *thumber* (a vermifugal member of the *Nepetæ* tribe), the common *tagara* (yellow wild *Cassia*), the beautiful bluebell, and another common species of *Cassia* which the natives call the "Ônam flower." In addition, various little violet and purple wildlings that adorn the margins of rice fields, and beautiful specimens of the lily and allied orders of tropical plants are requisitioned by the weavers of these remarkably handsome, but, alas, quickly perishable, carpets. The carpet completed, a miniature *pandal*, hung with little festoons, is erected over it, and at all hours of the day neighbours look in, to admire and criticise the beautiful handiwork. This object is peculiar to the naturally well favoured province of Keralam; and it serves to remind us that the people who possess the refined taste to produce such a pretty work of art must have long enjoyed a very high order of civilisation."

It has been noticed already under description of Nambû-tiri Brahmans (Bulletin, Vol. III, No. 1), that the cloths given as "ônam presents" are yellow, or some part of them is yellow. There must be at least a yellow stripe or a small patch of yellow in a corner, which suggests a relic of sun-worship in a form more pronounced than that which obtains at present. It is a harvest festival, about the time when the first crop of paddy is harvested. As a rule the Ônam season is one of bright sunshine following the almost continuous rain of June, July and August.

I once witnessed a very interesting game called *êitû* (*êiththu*), played by the Nâyars in the southern portion of Kurumbranâd during the ten days preceeding Ônam. Curiously, the locality and the period are, so to speak, fixed. There is a semi-circular stop-butt, about two feet in the highest part, the centre, and sloping to the ground at each side. The players stand 25 to 30 yards before the

concave side of it, one side of the players to the right, the other to the left. There is no restriction of numbers as to "sides." Each player is armed with a little bow made of bamboo about 18 inches in length, and arrows or what answer for arrows, these being no more than pieces of the midrib of the cocoanut palm leaf, roughly broken off, leaving a little bit of the leaf at one end to take the place of the feather. In the centre of the stop-butt, on the ground, is placed the target, a piece of the heart of the



plantain tree, about 3 inches in diameter, pointed at the top, in which is stuck a small stick convenient for lifting the "cheppu" as the mark which is the immediate objective of the players is called. They shoot indiscriminately at the mark, and he who hits it (the little arrows shoot straight and stick in readily) carries off all the arrows lying on the ground. Each "side" strives to secure all the arrows and to deprive the other side of theirs. A sort of "beggar my neighbour." He who hits the mark *last* takes all the arrows; that is, he who hits it, and runs and touches the mark before any one else hits it. As I stood watching, it

happened several times that as many as four arrows hit the mark, while the youth who had hit it first was running the 25 yards to touch the "cheppu." Before he could touch it, as many as four other arrows had struck it; and, of course, he who hit it last and touched the mark secured all the arrows for his side. The game is accompanied by much shouting, gesticulation, and laughter. Those returning after securing a large number of arrows turned somersaults, and in saltatory motions expressed their joy.

In the south-east of Malabar, in the neighbourhood of Palghat, the Onam games are of a rougher character, the tenants of certain jenmis (landlords) turning out each under their own leader, and engaging in sham fights in which there is much rough play. Here, too, is to be seen a kind of boxing which would seem to be a relic of the days of the Roman pugiles using the cestus in combat. The position taken up by the combatants is much the same as that of the pugiles. The Romans were familiar with

Malabar from about 30 B.C. to the decline of their power. We may safely assume that the "3,000 lbs. of pepper" which Alarie demanded as part of the ransom of Rome when he besieged the city in the fifth century, came from Malabar.*

Before ending this very incomplete account of customs of the Nâyars, mention must be made of two more of these, both odd. Ever since Châraman Perumal departed from the West Coast of India in A.D. 825, setting sail for Arabia and Mecca, having divided up his kingdom, His Highness the Maharajah of Travancore when ascending his throne says: "I ascend the musnud, and will rule until my uncle returns." The "uncle" is Châraman Perumal, the last sovereign of the west coast, who, having embraced the Muhammadan religion which was brought to his shores by Arab traders, proceeded to carry out a wild idea—so goes the legend—of receiving instruction from the Prophet himself! He never returned. To one princeling was given the territory now known as Travancore, and his surviving successor (through the female line of course) is the present Maharajah of Travancore. To another he gave Cochin, the ruler of which State also inherits through the female line. To the ancestor of the Zamorin of Calicut the Perumal gave no territory, as to the others, but he gave him his sword (it is still in existence) with the advice "to die and kill and annex." That he annexed is quite clear, as he was the sovereign not only of Calicut but of the country round about when modern Europeans first visited the west coast of India. Like the Maharajah of Travancore, the Zamorin repeats the formula that he rules until his uncle returns, but in his case it forms part of an elaborate and costly ceremony. The fort, which was the official residence of the Zamorin, was in Calicut,† and it has always been necessary for the new Zamorin to come to this fort in Calicut in a very formal manner. The residences, the kôvilagams of the various branches of the family, lie far to the eastward. The heir to the Zamorinship must make his formal entry into Calicut, for until he does so he is not, strictly speaking, the Zamorin. There is much obscurity as to details of the ceremonial, and I have not been able to note these satisfactorily, so will state merely so much as is undoubtedly

* See Madras Government Museum Catalogue No. 2, Roman Coins, by Mr. Edgar Thurston, Superintendent of the Museum.

† There is now no sign of it, though the site is known.

correct. The new Zamorin comes to the bank of the Kallai river adjoining Calicut. There he is asked some questions, and he crosses this river in a *boat*—not over the bridge. Arrived on the Calicut side he must partake of some betel-leaf from a Māppila man dressed as a (Māppila) woman, or, as some say, from a Māppila woman * and he says that he assumes the title of Zamorin and rules until his uncle returns. The betel-leaf, received from a (Muhammadan) Māppila, which he chews, defiles him. He has lost his status in the caste, and he is supposed to be henceforth celibate. It would seem that this old world ceremony is likely to follow the track along which so much of what is interesting in India is disappearing. The late Zamorin never went through it, and he was therefore never, properly speaking, the Zamorin. He held the title perfunctorily, and he was the kārnavan of the immense property of the family; but he could not go “in procession” as Zamorin.† There are three unpleasant concomitants to the ceremony. It costs much money. It involves degradation in caste. It compels chastity.

The other odd custom is not one affecting merely an individual and a few with him, but it is a sexual one, and therefore one belonging to the community at large—in South Malabar, at any rate. The system of inheritance through females as it obtains amongst the Nāyars, relieves the woman from that undignified position which she occupies throughout the civilized world as the personal chattel of her husband. It gives her a relative superiority, and she carries this elsewhere. *Coitus habet ita fit ut supina mulier viro morem gerat, immo etiam supino viro insidens illa, facie in eum conversâ genibusque hinc atque illic dispositis negotium illud perficere solet. Hanc veneris figuram feminis*

* Those who say that a woman gives the betel-leaf say, very reasonably, that a Māppila man would never for any consideration or purpose wear a woman's garb. But, on the other hand, it is said the person is and must be a man, and that he dresses for this occasion only, as a woman.

† The Zamorin was in Calicut but once since he became Zamorin on the occasion of his visit to His Excellency the Governor of Madras in 1896, and then infringed custom by coming to Calicut without previously undergoing the ceremony. Owing to a death in the family he was under pollution and therefore unable to undertake the ceremony at that time, so he came by train. These old-fashioned customs, written or unwritten, take no count of trains. For example, the modern pilgrims from Northern India find the train very convenient when they wish to visit Rameshvaram. The penance of a life is reduced to a few days in a train. What would the old sages say! So the Zamorin came by train. But he could not go “in procession” along the road as Zamorin, and was obliged to make his visit as an ordinary grandee.

ineundiorem, atque idcirco ab iis vindicatam esse perhibent periti. The well-known *jape* by which Iago hoped to arouse Brabantio into activity would be altogether inapplicable here.

Two more excerpts from Mr. Gopal Panniker's little book will be made, with his permission, descriptive of the other two most important national or popular festivals of Malabar.

"THE VISHU FESTIVAL.

" Vishu, like the Onam and the Thiruvathira Festivals, is a remarkable event amongst us. Its duration is limited to one day. The 1st of Mētam (some day in April) is the unchangeable day on which it falls. It is practically the Astronomical New Year's Day. This was one of the periods when in olden days the subjects of ruling princes or authorities in Malabar under whom their lots were cast, were expected to bring their New Year's offerings to such princes. Failure to comply with the said customary and time-consecrated demands was visited with royal displeasure resulting in manifold varieties of oppression. The British Government finding this was a great burden pressing rather heavily upon the people, obtained as far back as 1790, a binding promise from those Native Princes that such exactions of presents from the people should be discontinued thereafter. Consequently it is now shorn of much of its ancient sanctity and splendour. But suggestive survivals of the same are still to be found in the presents (explained further on) which tenants and dependants bring to leading families on the day previous to the Vishu.*

" Being thus the commencement of a New Year, native superstition surrounds it with a peculiar solemn importance. It is believed that a man's whole prosperity in life depends upon the nature, auspicious or otherwise, of the first things that he happens to fix his eyes upon on this particular morning. According to Nair and even general Hindu Mythology there are certain objects which possess an inherent inauspicious character. For instance ashes, firewood, oil and a lot of similar objects are inauspicious ones which will render him who chances to notice them first fare badly in life for the whole year, and their obnoxious effects will be removed only on his seeing holy things, such as, reigning princes, oxen, cows, gold and such like ones on the morning of the next New Year. Whereas wholesome and favourable consequences can be produced

* See Madras Museum Bulletin, Vol. III, No. 1, pp. 57 and 58.

by the sight of auspicious objects like those just enumerated. The effects of the sight of these various materials are said to apply even to the attainment of objects by a man starting on a special errand who happens for the first time to look at them after starting. However, with this view, almost every family religiously takes care to prepare the most sight-worthy objects on the New Year morning. Therefore, on the previous night they prepare what is known, in native phraseology, as a *kani*. A small circular bell-metal vessel is taken and some holy objects are systematically arranged inside it. A *Grandha* or old book made of palmyra leaves, a gold ornament, a new-washed cloth, some "unprofitably gay" flowers of the *Konna* tree, a measure of rice, a so-called looking-glass made of bell-metal, and a few other things, are all tastefully arranged in the vessel and placed in a prominent room inside the house. On either side of this vessel two brass or bell-metal lamps filled with cocoanut oil "clear as diamond sparks" are kept intensely burning and a small plank of wood or some other seat is placed in front of it. At about 5 o'clock in the morning of the day some one who has got up first wakes up the inmates, both male and female, of the house and takes them blindfolded so that they may not gaze at anything else, to the seat near the *Kani*. The members are seated one after another in the seat and are then and not till then asked to open their eyes and carefully look at this *Kani*. Then each is made to look at some venerable member of the house or sometimes a stranger even. This over, the little playful urchins of the house begin to fire small crackers which they have bought and stored for the occasion. The *Kani* is then taken round the place from house to house for the benefit of the poor families, which cannot afford to prepare such a costly adornment. With the close of the carelessly confused noise of the crackers the morning breaks and preparations are begun for the morning meal. This meal is in some parts confined to rice-*kanyi* with a grand appendage of other eatable substances and in others to ordinary rice and its accompaniments, but in either case on grand scales.

"Immediately the day dawns the heads of the families give to almost all the junior members and servants of the household and to wives and children, money-presents varying from 4 as. to a rupee or two. Children preserve these presents to serve as their pocket money. In the more numerically large families similar presents are also made by the heads of particular branches of the same family to their juniors, children, wives and servants. These presents are intended to be the forerunners of incomes to them more splendid all the year round.

"But one other item connected with the festival deserves mention. On the evening of the previous day, about four or five o'clock most well-to-do families distribute paddy or rice, as the case may be, in varying quantities with some other accessories to the family-workmen, whether they live on the family-estates or not. In return for this, these labourers bring with them for presentation the fruits of their own labours such as vegetables of divers sorts, cocoanut oil, jaggery, plantains, pumpkins, cucumbers, brinjals, &c., in ways such as their respective circumstances might permit.

"With the close of the noon-meal the festival practically concludes, and nothing remains of it for the next day or for the same evening, for that matter. In some families after the noon-meals are over, dancing and games of various kinds are carried on, which contribute to the enhancement of the pleasantries incidental to the festival. As on other prominent occasions, card-playing and other games are also resorted to."

"THE THIRUVATHĪRA FESTIVAL.

"Thiruvathira is one of the three great national occasions of Malabar. It generally comes off in the Malayalam month of Dhanu (December or January) on the day called the Thiruvathira day. It is essentially a festival in which females are almost exclusively concerned and lasts for but a single day. The popular conception of it is that it is in commemoration of the leath of Kamadevan, the Cupid of our national mythology. As recorded in the old Puranas, Kamadevan was destroyed in the burning fire of the third eye of Sita, one of the chief members of our Divine Trinity. Hence he is now supposed as having only an ideal or rather spiritual existence, and thus he exerts a powerful influence upon the lower passions of human nature. The memory of this unhappy tragedy is still kept alive amongst us, particularly the female section, by means of the annual celebration of this important festival. About a week before the day, the festival actually opens. At about 4 in the morning every young male member of Nair families with pretensions to decency, gets out of her bed and takes her bath in a tank. Usually, a fair large number of these young ladies collect themselves in the tank for the purpose. Then all or almost all of these plunge in the water and begin to take part in the singing that is presently to follow. One of these then leads off by means of a peculiar rhythmic song chiefly pertaining to Cupid. This singing is simultaneously accompanied by a curious sound produced with her hand on the water. The palm of the left hand is closed and held immediately underneath the surface of the water. Then

the palm of the other is forcibly brought down in a slanting direction and struck against its surface. So that the water is completely ruffled and is splashed in all directions producing a loud deep noise. This process is continuously prolonged together with the singing. One stanza is now over along with the sound and then the leader stops a while for the others to follow her in her wake. This being likewise over, she caps her first stanza, with another at the same time beating on the water and so on until the conclusion of the song. Then all of them make a long pause and then begin another. The process goes on until the peep of dawn when they rub themselves dry and come home to dress themselves in the neatest and grandest possible attire. They also darken the fringes of their eyelids with a sticky preparation of soot mixed up with a little oil or ghee; and sometimes with a superficial coating of antimony powder. They also wear white, black, or red marks lower down the middle of their foreheads close to the part where the two eyebrows meet another. They also chew betel and thus redden their mouths and lips. Then they proceed to the enjoyment of another prominent item of pleasure, viz., swinging to and fro, on what is usually known as an Ushinjal.*

"On the festival day after the morning bath is over, they take a light meal and in the noon the family-dinner is voraciously attacked; the essential and almost universal ingredients of which being ordinary ripe plantain fruits and a delicious preparation of arrow-root powder purified and mixed with jaggery or sugar and also cocoanut. Then till evening dancing and merry-making are ceaselessly indulged in.

"The husband population are inexcusably required to be present in the wives' houses before evening as they are bound to do on the Onam and Vishu occasions; failure to do which is looked upon as a step or rather the first step on the part of the defaulting husband towards a final separation or divorce from the wife. Despite the rigour of the bleak December season during which commonly the festival falls, heightened inevitably by the constant blowing of the cold east wind upon their moistened frames, these lusty maidens derive considerable pleasure from their early baths and their frolics in water. The biting cold of the season which makes their persons shiver and quiver like aspen-leaves before the breeze, becomes to them in the midst of all their ecstatic frolics an additional source of pleasure. In short, all these merely tend to brace them up to an extent the like of which they can scarcely find anywhere else.

* A swing made of bamboo.

"The two items described above, viz., the swinging process, and the beating on the water, have each its own distinctive significance. The former typifies the attempt which these maidens make in order to hang themselves on these instruments and destroy their lives in consequence of the lamented demise of their sexual deity, Kamadevan. It is but natural that depth of sorrow will lead men to extreme courses of action. The beating on the water symbolizes their beating their chests in expression of their deep-felt sorrow caused by their Cupid's death. Such in brief is the description of a Nair festival which plays a conspicuous part in the social history of Malabar."

Mr. Gopal Panniker's chapter on "Local Traditions and Superstitions" ("Malabar and its Folk") has special value, for in it he recounts existing popular belief. He tells us that to demon labourers are attributed the existence of old dilapidated wells and buildings, demons who perform Herculean tasks under orders of a chief. One day these demons having finished their task disturbed their chief when he was playing a game of chess, coming to ask for more work, so he told them to count the waves of the sea; and this is why they are still at work. He tells us why the crow has a long life and the fowl a short one, and how that the former has but one eye, rolling in a socket; how it is that the common squirrel is marked on the back by the fingers of Vishnu; and much that is of interest about the screech owl, the lizard, the crocodile, and many other things. He recalls to my mind the popular belief accounting for the unluckiness which will follow should one see the moon on the Chadûrti night, which I have heard in North Malabar. My note was somehow mislaid. It is that the big-bellied god Ganapati was once upon a time returning home in the moonlight after a repast so generous that his person was much distended, and unable to see his feet, he tripped and stumbled. He looked around to see whether any one had observed his discomfiture. There was no one but the moon. The moon laughed, whereupon he cursed the moon. Hence the belief that whoever sees the moon on that night will be unlucky, probably defamed. Mr. Gopal Panniker, a native of South Malabar, does not mention it, but in North Malabar women are scrupulously careful not to see the moon or be for a moment in the moonlight during that night for fear of calumny. There, the men do not care much. We will now bid adieu to Mr. Gopal Panniker, but not without thanking him for all he has told us about his own people.

Uchâl (Uchaval) is the term used for the first three days of the Malayalam month Makaram, usually falling between

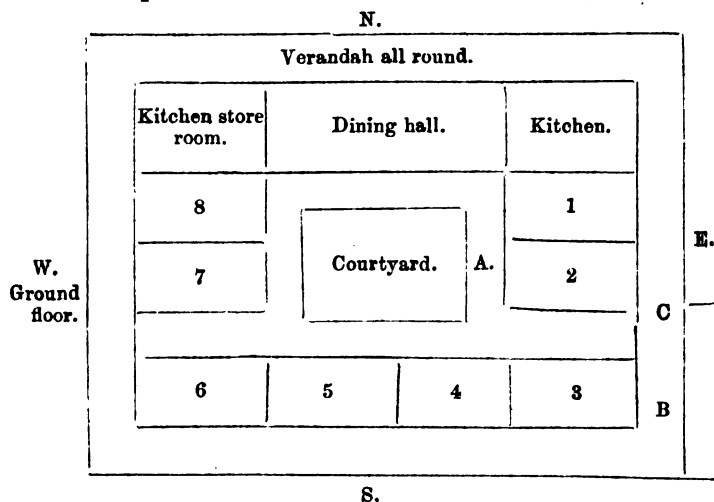
the 15th and 20th January. All over Malabar, with the exception of Wynâd, above the ghâts, there are two crops of rice every year, one with the south-west, one with the north-east monsoon. Elsewhere in Southern India rice land is always irrigated, but in Malabar there is no such thing, practically, as irrigation, the heavy rainfall rendering it unnecessary, and the earth goddess—Bhûmi Dêvi—brings forth her fruit under the stimulus of the rain from heaven. She produces the crops as a female produces her children, and from the 1st of the month Makaram, she rests until the cultivator again begins to disturb her, three months later, when the showers preceding the south-west monsoon fall. Uchâl is the period of three days when the earth goddess menstruates. Granaries and all receptacles of grain are closed during Uchâl—they are not even visited. Paddy is not sold. No implement of cultivation is touched. The rice to be used during the three days is pounded out beforehand and kept separate. But it is no season of gloom; rather is it one of festivity. As particular forms of food partaken on specific occasions have an interest of their own, we must not omit description of the Uchâl cake—the Pâla Ata. (Pâla—spathe of the areca-palm, Ata—cake). A paste is made of rice flour and water and spread thickly (about an inch thick) on one side of two pieces of the spathe of the areca-palm, each piece being from 2 to 3 feet in length and about 8 inches wide. Powdered jaggery, scraped cocoanut, powdered ginger, a little garlic and other condiments, are then put in small quantities on the paste. The two pieces of the spathe are then placed together, and they are stitched all round the edges. The whole is covered over with soft red mud and put into a fire where it is kept until the mud covering cracks. The cake is then cooked and ready for eating. It is cut and distributed to members of the family and friends.

In parts of Malabar the Tiyan tenants present these cakes to their Nâyar landlords as a token of allegiance or submission. Rice is the only article of food which if prepared by a Tiyan the Nâyar cannot eat; so the Nâyar has no caste scruples about eating the Pâla Ata prepared for him by the Tiyan at Uchâl. I recollect a case of murder which arose out of nothing more or less than a Tiyan tenant's refusal to present his Nâyar landlord with a Pâla Ata at Uchâl. I once tried to preserve one of these cakes, but the results were too disastrous for description.*

* For much of the information regarding Uchâl I am indebted to Mr. M. Ramen Menon.

HABITATIONS.

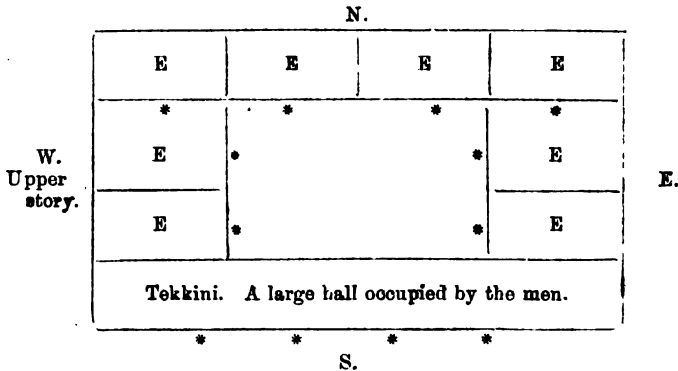
A house may face east or west; never north or south. As a rule the Nāyar's house faces the east. Every garden is enclosed by a bank, a hedge, or a fencing of some kind, and entrance is to be made at one point only, the east, where there is a gate-house, or, as in the case of the poorest houses a small portico, or open doorway roofed over. One never walks straight through this; there is always a kind of stile to surmount. It is the same everywhere in Malabar, and not only amongst the Nāyars. The following is a plan of a nālupura or four-sided house, which may be taken as representative of the houses of the rich;



Numbers 6 and 7 are rooms which are used generally for storing grain.

At A is a staircase leading to the room of the upper story occupied by the female members of the family. At B is a staircase to the rooms of the upper story occupied by the male members. There is no connection between the portions allotted to the men and that of the women. No. 8 is for the family gods. The Kārnnavans and old women of the family are perpetuated in images of gold or silver, or, more commonly, brass. Poor people, who cannot afford to make these images, substitute simply a stone. Offerings are made to these images (or to the stones) at every full moon. The throat of a fowl will be cut outside, and the bird is then taken inside and offered.

The entrance is at C.



Windows at * * * * *

E. Rooms occupied by women and children.

It may be noticed that the apartment, where the men sleep, has no windows on the side of the house which is occupied by the women. The latter are relatively free from control by the men as to who may visit them. We saw, when speaking of funeral ceremonies, that a house was supposed to have a central courtyard; and of course it has this only when there are four sides to the house. The *nālpura*, or four-sided house, is the proper one for in this alone can all ceremonial be observed in orthodox fashion. But it is not the ordinary Nayar's house that one sees all over Malabar.

N.

W.

S.

The ordinary house is, roughly, of the shape here indicated. Invariably there is an upper story. There are no doors but only a few tiny windows opening to the west. Men sleep in one end, women in the other, each having their own staircase. Around the house there is always shade from the many trees and palms. Every house is in its own seclusion.

ASTROLOGY, MAGIC,* WITCHCRAFT.

Astrology.—The ordinary astrologer of Malabar is a man of the Kamisan or Panikkar † caste, a community relatively low in the social scale, therefore carrying pollution to those of

* What was said under "Magic and sorcery" when describing Nambūtiri Brahmans, Bulletin, Vol. III, No. I, applies also to the Nayar.

† This is not to be confounded with the honorific Panikkar affixed to the name of a Nayar.

the higher castes. A curious position in society for people of a learned profession to occupy. The Panikkar is also, very often, the schoolmaster. He is in request in connection with every social function, religious or other, and of course, at every birth. His astrology, he will tell you, is divided into three parts :

- (1) Ganita, which treats of the constellations ;
- (2) Samkita, which explains the origin of the constellations, comets, falling stars, earthquakes ;
- (3) Hôra, by which the fate of man is explained.

The Panikkar, who follows in the foot-steps of his forefathers, should have a thorough knowledge of astrology and of mathematics, and be learned in the Vêdas. He should be sound in mind and body, truthful and patient. He should look well after his family, and he should worship regularly the nine planets :—Sûryan—the Sun ; Chandran—Moon ; Chovva—Mars ; Bûdhan—Mercury ; Vyâzham, or Guru, or Brihaspati—Jupiter ; Sukran, or Sani—Venus ; Râhu and Kêtu. The two last, though not visible, are, oddly enough, classed as planets by the Panikkar. They are said to be two parts of an Âsura who was cut in two by Vishnu.

I here reproduce a diagram made for me by a Panikkar showing the relative positions of the planets on the 7th of April 1895 :

Sûryan, Bûdhan.	Sukran.	Chovva.	Brihaspati.
Râhu.			
			Kêtu.
		Sani.	Chandran.

N.B.—Chandran remains 2½ days in each of the 12 râsis, or celestial chambers.

The Panikkars dabble also in magic. In Plates XVI, XVII are figured four yantrams, selected from a number in my possession as representative, presented to me

by a Panikkar. They should be written on a thin gold, silver or copper plate (a yantram written on gold is the most effective), and worn on the person. As a rule, the yantram is placed in a little cylindrical case made of silver, fastened to a string tied round the waist. Many of these are often worn by the same person. The yantram is sometimes written on cadjan or paper. I have one of this kind in my collection taken from the neck of a goat. It is common to see them worn on the arm, or round the neck.

No. I. Aksharamāla.—Fifty-one letters. Used in connection with every other yantram. Each letter has its own meaning, and does not represent any word. In itself this yantram is powerless; but it gives life to all others. It must be written on the same plate as the other yantram.

No. II. Śūlini.—For protection against sorcery, or devils. This is to invoke the goddess and secure her aid. The ceremony brings a blessing to the receiver of the charm.

No. III. Māha Śūlini.—To be used to prevent all kinds of harm through devils, chief of whom is Pulatini—he who eats infants. May be used also as protective against enemies. Women wear it to avert miscarriage. The letter in the middle, Hūm Māha Śūlini. That in the rim is Om.

No. IV. Kāla Bhāiravi.—Represents the goddess. The goddess must be pleased *first* by worship. No sacrifice, which is rather odd, as this terrible goddess is generally represented in Southern India as loving blood. The letters do not form any mantram. Each letter has life in itself. Prevents all harm from enemies, and attack by devils.

Other yantrams to be used in much the same way as these are:—

The *Ganapati* yantram. To increase knowledge. To put away fear and shyness.

The *Sarasvati* yantram. To enable its possessor to please his listeners, and increase his knowledge.

The *Panchakshari* yantram, a square containing 81 smaller squares, in each a mystic letter; the whole representing Siva. For persons on whom medicines have no effect. Also against evil spirits. A person out of whom an evil spirit has been driven is perfectly safe ever after with this carried on his person.

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I

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II

The *Santâna gopâlam* yantram. As a whole, it represents Sri Krishna. The letters in it (there are 101) put together in a certain way form a mantram. It is used by barren women so that they may bear children. It may be traced on a metal plate and worn in the usual way, or on a slab of butter which is then eaten. When the latter method is adopted it is repeated on 41 successive days, during which the woman as well as the Panikkar may not have sexual connection.

The *Sri Sûkra* yantram is another used by childless men and women in order to obtain offspring. The others are prophylactic against evil spirits (chiefly), to defeat enemies, to succeed in all undertakings and prevent loss of property by theft, to win over the good feeling of others, and so on. The *Sudarsana* mantram not only relieves sickness, but when drawn in 5 colours on the ground and worshipped while repeating a mantram (too long to quote) wards off the evil influence caused through black magic! Another, the *Nava* yantram, drawn in ashes of cowdung on a new cloth which is then tied round the waist, relieves a woman in labour. Yet another, the *Asvârûdha* yantram (Asva, horse; ârûdha, to climb) would also be useful to some people, as a person wearing it is able to cover long distances easily on horseback; and he may make the most refractory horse amenable by tying it round its neck. It will also help to cure sick cattle. In some the letters or syllables form a distinct mantram, while in others each has its own mystic meaning.

Let me hasten to assure any one desirous of applying one of these charms to himself that they are entirely inoperative unless accompanied in the first place with the mystic rite which is the secret of the Panikkar.

Magic—The Evil Eye.—One day as I reached my camp in the Kôtayam taluk, North Malabar, my ears were assailed by the din of incessant drumming hard by. In the evening I was able to see and converse with the drummer, Châtu by name, aged 23, by caste Malayan. The Malaysians are hereditary professional magicians, few in number, inferior in the social scale. They are not the only magicians. We have seen already (Bulletin, Volume III, No. 1, page 50) that some of the Nambûtiri Brahmans practise magic; but to the Malayan the Nayar appears as often as to any other kind of mantram-man.

Châtu was delightfully communicative. He had been putting away the effects of the evil eye from one of his clientèle;—hence the din. In effect, he said: certain persons have the evil eye by nature. Potta Kaanu, blind eye it is called. A person having the evil eye may, while *thinking evil*, infect man, woman or child by simply looking at them. Those who have the evil eye are generally women: men rarely. The cause is in the eye itself. No evil spirit is in any way connected with it. A woman may affect her own child. A person having the evil eye, looking at a beautiful or a healthy child, will affect it without intending to do so. The injury done through the eye is often unintentional. The power of the eye to do mischief is altogether beyond the volition of its possessor; but it is excessively virulent when mischief is really intended. Colour of the eye matters nothing. Nor is possession of the evil eye confined to any caste. He knew a Nambûtiri who had it. The effect of it on a child is that it becomes lean, feverish, loses its well-favoured appearance, and cries in its sleep. Men and women suffer from headaches and pains in the limbs. Animals are disposed to lassitude and eat little. Cows will not give milk.

The Malayan drives away all these unpleasant ailments by invoking an evil spirit Vudikandan by name: male, having no wife. By means of magic he *forces* Vudikandan to do what he requires of him. But how? The process he would not tell. It is secret. That is, all but the drumming. No one outside the Malayan caste may be initiated into the fearsome mysteries. The spirit Vudikandan is used for no other rite. The Malayan also drives out evil spirits.

Châtu presented me with a mantram, a magic verse, written with a style on a cadjan leaf, the common stationery of Malabar, and told me that whenever any part of my person becomes affected by the evil eye, I should whisper the mantram over a piece of string and tie the string round my leg, or other limb or part of the body which suffers, and cure will take place instantaneously.

He works by day: never by night. A whole day is occupied in driving away injury through the evil eye in a bad case. He need not be starving; in fact has a good meal before he begins. The generous Châtu presented me also with a couple of mantrams such as would cure an easy case of harm through the evil eye, and explained their use.

(1) “Ôm : Namo : Bhagavatôm Srîparamêśvaranûm Srî Pârvatî yum Pallivêta Nâyâtinnâi Ezhunellumpôl Srî Pârvatî

kê kannëru dôsam undâi Sri Paramësvaran Sri Pârvati
nte kannëru dôsam Tirtâtu pôlê Tirupôka Svâmi en
guruvînâna."

(*I prostrate myself to Bhagavati. When Sri Paramësvaran and Sri Pârvati went hunting, Sri Pârvati was under the influence of the evil eye; Sri Paramësvaran then put away this influence. I swear by my guru.*)

(2) "Ôm Pêpûti Vôrrûpôti Yerrikâ Swâhâ Yën (Guru
ânâna."

The meaning of this is not clear. "Ôm" = I. "Yerrikâ" = diet, urnt. "Swâhâ" (used as a verb) = devour. "Guru are uia" = by the guru or teacher. But in mantrams the them guru invariably means the deity.

he can 11ram (1) is whispered on sixteen grains of rice : on accomp. in separately, not on all together. As the mantram death of red on each grain, the grain is placed in oil. time, the sixteen grains have been placed thus in the

The 11red while the mantram (2) is repeated sixteen called, being magician then hands this oil in silence to the render him has been injured by the evil eye. The person without it, so in silence, and rubs it over his head. No midnight a n until he has finished.

ection, harm from the evil eye is very general. At the c The f the upper story of almost every Nâyar house wise, road or path is suspended some object, often a doll-like figure, on which may rest the eye of the passer by. and of course in every field some object is erected for the same purpose.

Magic such as is practised by the Malayan, or the Panikkar, is quite fair and above-board. It is, as a rule, all for good : never for harm. Nearly every misfortune, bodily ill or ailment, and even death is caused by some malignant spirit or through its agency, and the warlock has business everywhere relieving people from their oppression. I feel perfectly safe in saying that every Nâyar believes in magic through and through. No matter what his collegiate course has been, no matter how full of knowledge such as the West can give him, no matter how thrilled he may be by the higher Hinduism which condemns it altogether, he believes in magic as the cause of ills, and he believes in magic for removal of these. It is the last resource always, and the most powerful means in the hands of man. What are medicines, what is all our western science compared to it! The Nâyar will not, I trust, be offended

by these remarks, which after all mean nothing more than that he is truly human. Belief in magic and witchcraft, symbolic hurts and cures, and the like, are very deep in human nature; reason and culture do not efface it. It is one of the earliest heirlooms of the human family, and it will in all probability persist to the end. We cannot think of man as being without it.* Hence the interest in investigating it.

But now, as Patelin's Judge said to the draper, let us return *à nos moutons*. There is nothing secret about the profession of the Panikkar. His rites are secret of course. They are *his* secret. But his profession is an honourable one. He is not ashamed of it, nor will he deny it. It is, so long as he confines his talents to the practice of *valent magic*.

With the professor of the more lucrative *black magic* it is quite another thing. No one will ever admit publicly that he practises *black magic*.

Black magic.—It would never do to avoid altogether the subject of black magic, which is cultivated and practised to a much greater extent in Malabar than elsewhere in the Southern Presidency. I hope to have more to say about it later on when we come to the description of the lower races, and for the present we must be content with a rather bare description of it. We have seen all too many of a few Nambûtiri Brahmins practise it. A few years ago also do so. But as a rule the man who really worships in black magic is the Parayan. The old story. It is always the man of inferior race who is superior in black magic. The Parayans of Malabar are not, I think, identical with the Pariahs (Parayās) of Southern India. There are obvious differences in physique. In parts of rural Malabar one may see a Parayan's little hut far away on the hill side, but one tries in vain to see and speak to its inmates, who flee into the jungle. The Parayans are complete outcasts, and their presence carries pollution to one of any superior caste within about a furlong. It is not too much to say that, as a rule, they are abhorred as the lowest of the low. They eat beef, and are therefore quite outside the pale of Hinduism. I have heard of fairly well authenticated cases of their stealing

* The reader who has not given much attention to the subject of Folklore, may be surprised by the evidence of the persistence of these beliefs in England, available in the publications of the Folklore Society, London. See "County Folklore," chapters on Witchcraft, etc.

children of Nâyars, hiding them away in the forest and bringing them up as their own. The belief that they will steal children helps to some extent to make them dreaded as well as abhorred, but it is as skilled professors of black magic that are really feared. Ôdi is the name of the cult, and those who follow it, Parayans as a rule, are able to do many wonderful things. The ordeals to be gone through by the apprentice in the Ôdi cult are rather trying. Some are so utterly filthy and abominable, eating human excreta being a detail, that even amongst the Parayans, themselves dirty to a degree and accustomed to anything but a high class diet, very few are able to undergo them. Many try, and are unable to proceed. But the man who has gone through them all is a terror. He can make himself invisible, and he can turn himself at will into any animal in order to accomplish his desires. There occurs now and then the death of a woman—a Nayar or other—enceinte for the first time, the foetus having been removed for use in black magic.*

The Parayan magician, or Ôdiyan as he is sometimes called, being a pastmaster in Ôdi, is credited with power to render himself invisible, using such a foetus; and even without it, he may force a woman to leave her house at midnight and meet him. There would seem to be some connection, however obscure, with hypnotism and this latter. The Parayan, who turns himself into a bullock, in such guise, circumambulates a house thrice; then, still by means of his magic, he compels a certain woman of the household to come out to him. If we follow up popular belief, we find that the Nayar woman so drawn out of her house is bound to die within three days. But as it is well in a description of this kind, to proceed by illustration when possible, I will quote an authenticated story of a woman having been compelled to leave her house by night. The "walking the dæsil" by the bullock, one of those imaginative performances difficult to account for in human belief, must be left out of the story as no one is said to have seen it.

A Nayar noticed that, for some days, his wife, who was (contrary to the usual custom, as we have seen it to be) living in his house, appeared to be under some occult influence; and under a premonition that something was going

* Not very long ago there was a case of this kind, not far from Palghat, and not only was the foetus removed but a wisp of straw was substituted in its place; apparently with an idea that, if the space were filled up somehow, the wretched woman would not die!

to happen he slept across the doorway, so that she could not without waking him leave the house. The door was closed and fastened, he sleeping *inside*. In the early hours of the morning he awoke, and, fearing something unpleasant had taken place as the door was open, he called his brother who was sleeping upstairs. Together they searched for the woman, and found her lying outside in the yard, unconscious. When she recovered her senses, she said that for some nights previous she felt as if she was being called outside, and she tried hard to resist the impulse to go out of the house into the night. At last she could resist no longer and, altogether against her will, unfastened the door and went out. What happened then she knew not. There was neither removal of a foetus nor death in this case. Such is the story. It is quite possible that stories of the kind are inculcated by wary husbands to keep the women indoors and prevent their being crowned with horns. At any rate the story is one of the kind such as every Nāyar believes. It is, I may say, quite plainly to be seen that, when the Nāyar constructs his house, he takes care that there are certain conveniences, so that the women need never leave the house at night. My narrator was a native gentleman in a position of authority, living at the scene of this strange story when the events related in it occurred not long ago. The persons were named, but I did not question them, as there is much objection to speak of such things to a stranger.

The Odi cult.—The Parayan adepts in the magic Ōḍi cult are to some extent hereditary functionaries.* They form one of those hierarchies, common enough in this country, of which Europeans know so little; of which the people themselves know but little as nothing connected with them or with their system is written. It is custom pure and simple—custom which is the most difficult of all to approach and define with accuracy. We will put down what is known, in the way of popular belief of course, as may be free from error.

Those who belong to it, born into it so to speak, go through a certain novitiate, not easy; but those who wish to join it from outside the fraternity of the cult are required to *prove* themselves worthy to join it; and it is their trials as novices, terrifying and utterly filthy, which are truly difficult.

* For much of this which follows I am indebted to Mr. U. Balakrishna Nāyar, who has kindly obtained for me matter which is in a general way, unobtainable to the European.

Members of the brotherhood are bound to secrecy by solemn oaths, and the secrets of their craft are not allowed lightly to pass to any outsider. A member of the brotherhood may have one or more disciples or apprentices who are in the first place bound to strict obedience. These apprentices fill vacancies in the brotherhood.

He who would be a member of the Ôdi cult falls at the feet of him whom he would have as master, and begs for initiation into the mysteries. The master tries to dissuade him, but the would-be Ôdiyan persists; and then, when assent is given, comes the trial. He follows his master to a lonely place by night. The master disappears in mist, and then re-appears as some terrible beast, now standing still, now rushing furiously towards the novice as if to tear him in pieces. If he stands still and unperturbed the novice is considered to have fulfilled *that* test. He is then required to pass the night alone in the forest, which he is made to believe is peopled with strange beings howling horribly. When he has satisfied the master that he is not afraid, he is subjected to other tests, and he is eventually accepted as a novice. He is introduced formally to the brotherhood on a certain selected day, when, having invited them to a feast, pûja is made to the dread spirit worshipped by them—Nili of Kalladikôd or Kalladikôd Nili, as she is called (Kalladikôd is the *place* name), through whose aid the Ôdiyan works his devilment. Flesh and liquor are consumed, and the novice is taught how to procure the magical *Pilla thilum* (infant oil).

The principal ingredient to be used in preparing this is a foetus of some 6 or 7 months growth. The Ôdiyan fixes his eye on some woman, who may be of any caste other than his own, in her first pregnancy. Then, on a selected day, usually a Friday, he proceeds to her house at midnight, provided, that is, he meets with no inauspicious omen on the way. I am not sure what omens are auspicious or the contrary; but at any rate the Ôdiyan returns home should he meet with an omen which is unfavourable, and starts out again some other night. Transforming himself into a dog, a bullock, a cat or some other quadruped, he walks thrice round the house, shaking vigorously a cocoanut-shell containing *gurusi*, a compound of turmeric water, lime and other substances, the colour of which is red. The woman whose appearance is desired comes out. She cannot help herself. If locked in she bangs her head against the wall, and yells until she is allowed to go out. Once out,

she rushes like a mad thing into the arms of the Ôdiyan. He takes her by the hand and leads her to the courtyard or outside it. At once she is stripped naked. The *choru kindi* (blood—vessel: the shell) being placed near it, the womb expands, and the foetus is easily removed in a moment. A few leaves of the *mailôsika* plant (*Polycarpæa spadicea* *) are placed as was the other instrument of magic, and the womb contracts to the normal dimensions.

No wonder the Ôdiyan is feared. By means of this *pilla thilum* he may render himself invisible; in fact he is able to do anything, according to popular belief.

SPIRITS, EVIL AND BENEFICENT, HOW SUBDUED.†

A regular working magician tells us something more of these. The most important of the evil spirits (*Dûr murti*) are—

Karinkutti.	Bhâiravan.
Kuttichchâtan (we have met him before).	Vanni bhâiravan.
Mâranakutti.	Chotâla bhadra kâli.
Kallâti mûttan.	Dûmapati.
Parakkutti.	Narasihmamûrti.
Ôdikutti.	Kâla bhâiravan.
Kuttu bhâiravan.	Ôdi bhâiravan.

Nearly every man, woman and child in Malabar wears some protective charm against evil spirits. Such charms are also very commonly tied round the necks of cattle, goats and even dogs.

Here follows the recipe for subjection of the spirit *Karinkutti* into one's service. Of course each spirit is treated always in a totally different way. First you bury a dead black or reddish buffalo. You must not catch your buffalo and kill him. You must find him dead. If you say this is far from easy, I can only remark that the subjection of an evil spirit is not an easy matter. Having buried your buffalo—assuming for the moment that you are a magician, such as the instructions are intended for—you bathe, and while your cloths are wet and clinging to your body, draw the figure of a *chakram*, which corresponds to a magic circle, on the ground over the buried buffalo. The

* I am not sure that the correct name is here given for this plant. It may be *Alpinia Allughas*, the aromatic rhizomes of which are used by natives medicinally.

† For this note, too, I thank Mr. Balakrishna Nayar.

ground is then plastered over with cowdung. Then you mark out with rice flour an eight cornered chakram, in the centre of which you place a small piece of cadjan leaf, and you place a similar piece at four corners. You sit with your back to the chakram, facing eastwards in the morning and westwards in the evening while performing pûja. This pûja is, I think, addressed to Karinkutti : not in any way to the sun God who is not then visible. For the pûja you must be supplied with fried grain, beaten rice, rice bran, a fowl, toddy, arrack, some flowers of three colours—one of them the tulsi (*Ocimum sanctum*)—sandalwood-paste, camphor, incense. (Note the use of the sacred tulsi in this diabolical incantation !) While the pûja, which I am unfortunately unable to describe (leaving my directions rather lame) is being performed, the mûla mantram of Karinkutti is to be repeated 101 times.

In order to do all this you must bathe $7\frac{1}{2}$ nazhikas (about $2\frac{3}{4}$ hours) before dawn, and complete the pûja before dawn arrives. But even before this you must stand up to your chest in water and repeat the mûla mantram 101 times. And you must repeat the whole thing *da capo* in the evening. The mantram is thus repeated 404 times in the day. You are not done yet, in fact this is only the beginning. The whole thing is done every day for 21 consecutive days; and then you will have the evil spirit Karinkutti entirely at your disposal. The person who remains continent, eats but once a day, cooking his own food, may it is said bring the spirit into obedience in less than 21 days.

Subjection of Vanni Bhâiravan is a much more difficult matter, involving much more elaborate ceremonial, details of which may well be spared the reader as the example which has been given is quite adequate.

And the good spirits—

Bhagavati.
Bhadra kâli.
Hanumân.
Ganapati.
Subrahmanyan.

Mûkâmi.
Virabhadran.
Mohini.
Sarabha Mûrti.

The evil and the good spirits are truly a strange collection of beings! Their names help to illustrate what has been said already, that the Hinduism of the west coast is a strange medley of the higher Hinduism with the lower cult of the country. Bhâirava or Kâla Bhâirava (Bhâiravan of the Telugu country) is elsewhere the object of adoration of

what is almost a distinct cult, a kind of mixture of Hinduism with Buddhism,—the *kāpālīka* religion or cult, the novice in which is “taught how to worship *Bhāiri dēvam* (*Kāla Bhāirava*) with human blood, by human sacrifice, by drinking liquor from a *Brāhman*’s skull, and by wearing wooden earrings called *Kāmākshi kundala*, symbols of the female principle.”* The licentious portion of the programme I will leave out, as we can but glance at the *Bhāiravan* of other parts of Southern India. There, *Bhāirava*, or by whatever equivalent he may be called, is a male entity ; in Malabar, where sex in deities is not of very much moment, *Bhāirava* is female. *Bhadra Kāli*, and even *Vishnu* under another name, is dragged into the category of evil spirits !

The first five of the good spirits are, of course, well known. It is odd to find the terrible *Bhadra Kāli* bracketed with the genial *Ganapati* and reckoned as a good spirit. Some of the others are local spirits though rated along with emanations of Hinduism.

A point to be noticed here is that the magic which has been described is of that kind which is intimately connected with religion, in that the aid of spiritual beings is sought, and mischief is wrought by their means.

But there is, of course, another side of magic ; the sympathetic, which deals in symbolic hurts and cures ; of quite another character, being nothing more than a “misdevelopment of natural philosophy.”

These divisions of magic, though tolerably distinct, are not therefore always separated. They are sometimes blended.

It was my good fortune, not very long ago, to acquire possession of a couple of *grandhas*, or palm leaf books, the subject of which is ordinary magic and black magic. Like all works of the kind (these are in the Malayalam character) they are written in such a manner as to be quite unintelligible to the ordinary reader. Letters, symbols, syllables belonging to no known word are employed to express occult meaning. In fact it is more a memorandum than anything else. One of the *grandhas* is so obscure that translation of it is next to hopeless, for the few who can do so are altogether unwilling to help one to decipher it. The other is composed

* From an article by the writer in the “*Journal of the Anthropological Society of Bombay*,” Vol. I, No. 7, 1889.

of Sanscrit and Malayalam words, spelled abominably ; but though relatively clear for a book out of a " Mantravādis " (Warlock's—Magicians) library, it, too, contains many blank spaces which can only be filled up by the professional dealer in magic. Fortunately, by the kindness of Mr. U. Balakrishnan Nayar, these blanks have been filled up in the translation which he has obtained for me—from *one who knows*.

I will give here an excerpt from it, which is fairly representative of the sympathetic side of magic such as is common in Malabar. It is not, I think, concerned with sympathetic or symbolic magic exclusively, as, unless I am much mistaken, an evil spirit is here also invoked. It is within the domain of black magic, in which, I think, an evil spirit is always made to help if not to work the evil.

It describes how to cause certain pains in the body of another. A mantram is written (here, I think, an evil spirit is called up, though such does not appear to be said), on the stem of the kâitha plant. The stem should be the length of eight fingers. A figure representing the person to be injured is (also) drawn on the stem. A hole is bored to represent the navel. The mantram is repeated, and at each repetition a certain thorn (kâra mollu) is fixed into the limbs of the figure. The name of the person and of the star under which he was born are written on a piece of cadjan leaf, which is stuck into the hole representing the navel. The thorns are stuck in 21 times ; that is, removed and replaced 21 times. Two magic circles are drawn below the nipple on the figure. The stem is then hung up in the smoke of the kitchen. A pot of toddy and some other accessories are procured, and with these certain rites are performed by the warlock. When he has concluded them, he moves three steps backwards. He shouts aloud thrice, fixing in again the thorns, thinking all the while of the particular mischief with which he would afflict the person to be injured.

When all this has been done, the person whose figure has been drawn on the stem and pricked with thorns, feels pain as if he were being pricked with thorns.

The grandha describes also how an enemy may be struck dumb. The head of a dark coloured fowl is cut off. The head is then split, and a piece of cadjan on which are written a mantram, the name of the person to be injured,

and the name of the star under which he was born, is stuck into the split head which is then sewn up, taking care to stitch the tongue to the beak. The head is then inserted in a certain fruit, which, after being tied up with a withe of a certain creeper nine spans in length, is deposited under the enemy's gateway.

In it, too, we are told how to win over a man, or a quarrelsome husband; how to quiet refractory cows which object to be milked; how to cure a headache; to prevent bad dreams, and so on.

N.B.—A mantram must be spoken, breathed, whispered with extreme accuracy. There must be no omission or false accent. Anything of the kind, or wrong pronounciation, destroys its efficacy at once.

FAMOUS MAGICIANS OF MALABAR.

We will close this chapter on magic which, though painfully inadequate, is already rather too long for its purpose, by mention of some of the famous workers in the art. Those who are familiar with the west coast will at once recall to mind the names of three Brâhman families whose scions are famed throughout the land as possessors of stores of magic, and at the same time—so interwoven is magic with religion!—revered for their saintliness. The eldest member of one of these is said to be “an honoured guest throughout the length and breadth of Kêrala; and on certain State occasions in Trevandrum and elsewhere, his presence is indispensable.” A well-known tradition relates how that magic came, so to speak, into the family. (It is not necessary to give the family name, even though it is a household word on the west coast.)

Long ago in the days of the Perumals, a Brâhman and his friend were belated in the Yakshi paramba (*yakshi*—female demon, *paramba*—garden) near Trichur.* The place was dreary; nothing but palms around. Suddenly they were accosted by lovely damsels who asked them to pass the night under their roof, and soon they were lodged in a sumptuous house, each in a separate chamber. But in the night, the damsels, who had, *Lorelei* fashion, attracted the travellers, resumed their demoniacal forms and ate the Brâhman. His friend they could not touch as he had on his person a grandha sacred to Bhagavati; but in the morning

* To this day people avoid this place at night.

he found himself perched on the top of a palm tree underneath which lay the bones of his friend, the Brâhman.

The Brâhman's widow gave birth to a son soon after the strange death of her husband. When the boy was eleven years of age, she related to him how he had been made fatherless. He vowed vengeance on the Yakshis and Gandharvas (male demons) and, like a sensible boy, set about preparation for his life-task. It was not long before he had mastered the Vêdas and all learning, and having done so he retired to the jungle, where he was engaged in prayer and meditation for seven years. His devotion so pleased Sûrya, the sun god, that he appeared before him in human form and handed him a *grandha*, which is to this day the greatest work on magic in existence. The kind attention of the sun god accounts for the prefix "Sûrya" to the family name.

Now well equipped, he made war on the Yakshis and Gandharvas, and compelled the Yakshi who had devoured his father to appear before him. She begged for mercy, offering to serve him faithfully. But he would have none of her and made her enter the sacrificial fire, and she was consumed. Then her Gandharva lover turned up, most inconveniently, and cursed the Brahman magician to suffer death on the forty-first following day. It was now the magician's turn to beg for mercy, and the Gandharva, more merciful than the Brâhman had been to the Yakshi, extended it to him. On one condition, however, that on the forty-first day he would worship at the Alangât Tiruvalore temple in expiation. Naturally, he went to fulfil it, and preparatory to worshipping, descended into the temple tank to bathe. All at once he was seized with delirium and raved like a maniac, biting the wooden beams of the bathing shed. He died after enduring frightful agonies. The marks of his teeth are to be seen to this day! Moral—Don't meddle with magic.

Another famous magician was by caste a Ravuthan (a class of Tamil Muhammadans of which there are a few on the west coast) who died about 30 years ago. The story is that having been turned out of his father's house, he was in sad plight, when, awaking from sleep under a tree, a white-bearded Rishi* confronted him and presented him with a *grandha* of magic, which he put to such good

* It is rather comical, a Rishi appearing to a Muhammadan! Again the queer mixture of religious ideas.

use that he died a very wealthy man. Here are two authenticated stories from the families of Nâyars of good position whom he assisted in each case.

(1) A Nâyara lady, having lost several children in infancy, sought the magician. He came to her house, and asked for a common mud pot, a fowl, some rice and some pepper. With what formality is not said, but the fowl (alive?), the rice and the pepper were put into the pot, which was buried in the ground under the lady's cot. Every day, she ate some of the rice and pepper, and in due time produced a daughter who is now living.

(2) Nearly every young Nâyara woman wears a talisman, protective against evil spirits. The Ravuthan magician was called in to prepare one of these. Placing an ordinary style and a small sheet of copper in a box, he closed it. Presently a noise was heard inside the box; and in a few moments a sound as of the style falling. The box was opened and magic figures were found to be inscribed on the copper sheet. The lady wears the talisman now! The magician must have been in a favourable mood on that occasion, as he is said to have given an additional performance on his own account. When he had placed the style and the tiny sheet of copper in the box, taking two young cocoanuts in his hands, he kept on throwing them in the air and catching them. "What will you have in each?" he asked. "Honey in one and boiled milk in the other" was the answer. Of course these were found in the cocoanuts when they were opened by the magician, but it was somewhat gross of the Nâyara gentleman to test the quality of the milk by turning it into curds the next day. Wonderful stories are told of this man who used to be seen at night carried in a mancheel by invisible bearers, whose weary chant could be heard, but whose bodily presence was beyond the reach of human eye.

The last and the chief of this trio is the once famous Kandeth Nâyara who departed this life about a hundred years ago. Every one knows about the Kandeth Nâyara, and any one now-a-days who wants to injure another invokes his aid, and resorts to his tomb to fulfil his vow. I understand that sacrifices at his tomb are common, and that his power reaches from the land of shades in almost the same strength as when he lived.

The rather incoherent way in which the terms warlock, magician, have been used seems to demand some explanation.

Strictly speaking, the Parayan Ôdiyan is the only warlock. Magician is scarcely the correct term for the ordinary worker in magic. Nevertheless, it is scarcely possible to avoid a somewhat indiscriminate use of these terms on account of the way in which the functions of the warlock, the magician, the astrologer, and even the priest are really interwoven one with the other. The professed magician is often also the warlock and *vice versâ*. The vernacular word, which is as catholic as that which stands for "Religion," is "mantravâdi"—mantram man; he who is sought every day of the year by hundreds of the people of Kêrala, to relieve them of their physical troubles and infirmities, to cure their cattle, to injure their enemies, aye, even to destroy them.

APPENDIX A.

The account of the funeral ceremonies which has been given is not, of course, full and accurate as regards all the clans; but it is precise as regards one, and suffices for the present to give a clear idea of the ceremonies as performed by all. There are many interesting features in the ceremonies as performed by the Kiriattil clan. Want of space forbids more than the briefest mention of some of these.

Those who carry the corpse to the pyre are dressed as women, their cloths being wet, and each carries a knife on his person. Two junior male members of the Taravâd thrust pieces of mango wood into the southern end of the burning pyre, and, when they are well lighted, throw them over their shoulders to the southwards without looking round. Close to the northern end of the pyre two small sticks are fixed in the ground, and tied together with a cloth, over which water is poured thrice. All members of the Taravâd prostrate to the ground before the pyre. They follow the Enangru carrying the pot of water round the pyre, and go home without looking round.

They pass to the northern side of the house under an arch made by two men, standing east and west, holding at arms length, and touching at the points, the spade that was used to dig the pit under the pyre, and the axe with which the wood for the pyre was cut or felled.

After this is done the "kodali karma" ceremony, using the spade, the axe and a big knife. These are placed on the leaves where the corpse had lain. Then follows circumambulation and prostration by all; and the leaves are committed to the burning pyre.

APPENDIX B.

At the last moment I have received from Dr. E. Hultzsch, Ph.D., the Government Epigraphist, the following excerpt from the number of the *Epigraphia Indica* which is now under publication, and which with his permission I add to this monograph. It is interesting evidence of the old martial spirit of the Nâyars:—

“According to an inscription of the 14th year of his reign (= A.D. 1083-84) the Chôla King Kulôttuṅga I. ‘conquered Kuḍamalai-nâḍu, i.e., the Western hill-country (Malabar), whose warriors, the ancestors of the Nâyars of the present day, perished to the last man in defending their independence.’—*South-Indian Inscriptions*, Vol. III, p. 130.

TRANSLATION OF AN INSCRIPTION OF THE 14TH YEAR OF
KULÔTTUṅGA I. AT TIRUKKALUKKUNRAM.

Line 27.— ‘While all the heroes⁷ in the Western hill-country (Kuḍamalai-nâḍu) ascended voluntarily to heaven,’ &c.—*South-Indian Inscriptions*, Vol. III, p. 147.

⁷ In Malayâlam, *châvêr* (Tamil *śâvēru*) means ‘one who has elected to die, moriturus.’ ”

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